FINANCIAL TIMES

No. 26,693 Monday June 16 1975 **10p

1971 1975 THE QUEEN'S AWARD TO INDUSTRY

CONTINENTAL SELLING PRICES: AUSTRIA Sch.13; BELGIUM Fr.20; DENMARK Kr.2.75; FRANCE Fr.2.20; GERMANY DM1.70; ITALY L.300; NETHERLANDS Fl.1.50; NORWAY Kr.2.75; PORTUGAL Esc.15.00; SPAIN Ptas.30; SWEDEN Kr.2.50; SWITZERLAND Fr.1.50.

NEWS SUMMARY

GENERAL

Israelis bomb guerilla base

Israeli warplanes struck inside Lebanon for the first time in three weeks, following an Arab terrorist attack on an Israeli farming village nearby in which two civilians died and the four Arabs were killed by troops.

The air strike was on the village of Kfar Shouba, long a staging-point for cross-border guerilla operations. The Lebanese said a woman was killed and three people were injured.

The guerillas, who took hostages at a farmhouse in the village, had demanded the release of 12 prisoners, including Archbishop Hilarion Capucci, convicted of arms-smuggling.

Israel has protested to U.N. Secretary-General Kurt Waldheim over the attack, for which the Iraqi-backed Arab Liberation Front claimed responsibility. Page 6

Don Juan claims Spanish throne

Don Juan de Bourbon, father of the Spanish King-designate, Prince Juan Carlos, has reiterated his own claim to the throne and rejected the order of succession imposed by General Franco. He told Spanish dissidents in Lisbon that the end of absolute power in Spain appeared to be near. Page 6

Crossman diaries: Foot opposes ban

Mr. Tom Dalyell, Labour MP for West Lothian, who was a friend of the late Mr. [illegible] Crossman, is backing the [illegible] General's [illegible] to seek [illegible] injunction to [illegible] the first volume of the Crossman diaries. Employment Secretary Michael Foot is among the literary executors who are to oppose the attempted ban. Page 4

Pit disaster face to be sealed off

Coal Board workmen began sealing off parts of Houghton Main Colliery, Barnsley, wrecked by Thursday's explosion which killed five miners, in a bid to quell the fire now raging in the blast zone. Equipment worth £750,000 is being abandoned because of a build-up of deadly carbon monoxide

21 die in Alps

Twenty-one people were killed and 22 injured when a bus carrying elderly Austrians on a day outing plunged down a steep hill in the Carinthian Alps when the brakers apparently failed.

Rhodesia gunfight

Rhodesia Government said 20 people were killed on Thursday when African nationalists fought a village gun battle with security forces. It did not reveal whether the victims were villagers or guerillas. Page 7

Push-bike rally

About 3,000 cyclists who gathered in London in a protest rally for better facilities were told by police that it would be unsafe to let them ride their cycles. Because of the decision, they had to push them from County Hall to Downing Street.

Le Mans victors

Derek Bell of Britain and Jacky Ickx of Belgium won the 24-hour Le Mans sportscar race in a Gulf-Ford with a cracked exhaust pipe

Briefly . . .

Watney is to increase the strength of four beers, which account for 40 per cent. of its draught output, from to-day. Page 4

Romanian musician, who appeared with a group of folk dancers in Coventry last week, has applied "to stay longer" in Britain, the Home Office stated.

French stable lads forced cancellation of the entire programme at Chantilly after they invaded the race course to demand better pay and conditions.

Swansea hang glider enthusiast fell 20 feet to his death at Rhossili Down, Gower.

BUSINESS

Oil price rise could spark retaliation

● **U.S.** will propose that Western oil consumers retaliate against the OPEC cartel if Dr. Henry Kissinger's diplomacy fails to prevent a significant increase in oil prices later this year. Back Page

● **GLUT** of oil tankers of over 150,000 dw tons is causing growing concern in the oil industry. One company has decided to publish an internal report on the surplus of capacity to underline the need for cancellation of most supertankers now on order in the world's shipyards. Back Page

● **UNCERTAINTIES** over North Sea oil development and a shortage of funds for investment are blamed by Anchor-Wate, a British subsidiary of a U.S. group, for its decision to scrap plans for a £2.5m. South Shields plant to coat pipes for North Sea oil fields. Page 4

● **U.K. ALUMINIUM** output in April—at 27,251 tonnes—was the highest for 18 months, but dispatches of metal to customers were down 33 per cent. in the first four months of this year, compared with a year ago. Page 4

U.S. seeking tighter nuclear deal controls

● **TIGHTER NUCLEAR** safeguards on the sale of civilian nuclear plants are being sought by the U.S. in talks with other nuclear-exporting countries. The aim is to prevent third nations building atomic weapons. Page 7

● **BRIBES** allegedly paid to Iranian and Saudi Arabian officials by foreign companies to secure Government contracts are to be investigated by the two countries. Back Page.

● **AGREEMENT** has been reached after 2½ years on control of Lu-Brut, the leading French biscuit company, for which Britain's United Biscuits was at one time a bidder. Page 25

● **SOUTH AMERICAN** inflation rates are coming down. Brazil's annual rate was only 25.4 per cent. last month, compared with 35 per cent. a year ago, putting it on a par with Britain's.

Unions at odds on participation

● **ELECTRICITY** supply unions are likely to disown TUC proposals for worker participation in the industry. Several unions have already presented alternative suggestions in evidence to the Plowden Committee of Inquiry. Page 5

● **MOTORCYCLE** industry chiefs from Meriden and NVT are to meet the new Industry Secretary, Mr. Eric Varley, for talks on Wednesday. Page 4

● **SELF-EMPLOYED** have called off their threatened VAT boycott, following a "breakthrough" in talks with the Government. Page 4

● **CLOSED SHOP** provisions of the Tories' Industrial Relations Act were "frustrated" by many companies, who favoured such arrangements, say four academics from Warwick University in a new book on closed shops. Page 5

COMPANIES

● **NORCROS** pre-tax profits—including results for Crittall Hope, acquired in March, 1974—totalled £11.64m. for the 16 months to March 31, 1975. Page 24 and Lex

● **REAL GROWTH** in the U.K. operations of Ever Ready Company (Holdings) is likely to be limited until Government policies change and union attitudes alter, says chairman, Mr. L. W. Orchard. Page 24

ON OTHER PAGES

FEATURES

For latest Share Index 'phone 01-246 8026

Rail union may seek new talks after ministers' warning

BY ROY ROGERS, LABOUR CORRESPONDENT

National Union of Railwaymen's leaders, who meet this afternoon to discuss the intense political pressure put on them over the week-end to call off the strike planned to begin next Monday, are expected to confirm the strike decision.

But in doing so they may suggest further negotiations with the British Railways Board on their demands for pay increases of 30 per cent. to 35 per cent.

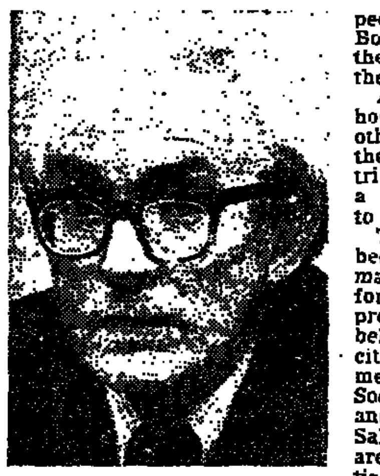
The entire 24-man NUR national executive was at 10, Downing Street on Saturday evening where Ministers, including the Prime Minister, the Chancellor of the Exchequer, Mr. Denis Healey, and Employment and Environment Secretaries Mr. Michael Foot and Mr. Anthony Crosland, spelled out the "catastrophic" effect a rail strike would have on the economy.

Mr. Healey did most of the talking, emphasising that last week's run on the pound had been the result of the NUR's strike threat alone. On that basis, he argued, an actual strike would have disastrous effects on the economy.

The NUR men were left in no doubt that the Government was prepared to fight if they held out for their full claim. They did not get the impression that the 27.7 per cent. arbitration award on offer to railmen was the absolute limit.

Indeed, week-end speeches from both Mr. Healey and Mr. Foot could be interpreted to indicate that there might be scope for a limited improvement in the award which, at 27.7 per cent. is still below the level of other recent public sector pay settlements, most of which have topped 30 per cent.

Mr. Healey declared that the Government would destroy its credibility if it allowed railmen to settle "far above" the social contract guidelines or the arbitration figure, while Mr. Foot underlined that the Government could not and would not accept "this claim."



Mr. Foot: Government "cannot and will not accept this claim."

Speaking in a BBC radio interview yesterday, Mr. Foot said the Government would fight to prevent the strike. There was no idea of the Government wanting a showdown with the union.

"We wish to avoid a strike just as much as the union wishes to." A strike, he said, would poison the atmosphere of dealing with inflation and would be a catastrophe.

Government pressure to re-open negotiations is now expected to be applied to the BR Board, which only last week told the NUR it could not improve on the tribunal award.

Any fresh negotiations would, however, have to include the two other rail unions which, although they have already accepted the tribunal award, are likely to seek a share in any improved offer to the NUR

This could prove difficult because any moves on the NUR's main demand of improvements for the lower-paid railwaymen to prevent them falling further behind surface miners, electricity supply workers, and postmen, may upset the Associated Society of Locomotive Engineers and Firemen and the Transport Salaried Staffs Association, who are anxious to preserve differentials restored by the percentage tribunal award.

At Saturday's Downing Street meeting, Mr. Wilson urged the NUR leaders against making any hasty decision on the strike. Accordingly, after a brief meeting at the union's Euston headquarters, concerned mainly with strike preparations, the executive was adjourned until this afternoon. Since their reading of the situation is that there might be at least some more money around, there appears to be little chance of the strike being called off to-day.

Meanwhile, pre-strike meetings of NUR members are being held throughout the country. At one of the first of these yesterday more than 3,000 members from six Crewe area branches voted unanimously to support the union's strike call.

Varley and Lever split over Industry Bill

BY JOHN BOURNE, LOBBY EDITOR

ARGUMENTS AMONG senior industrial and economic Ministers about the changes the Government should propose to its controversial Industry Bill are expected to be resolved later this week or next.

Last Friday's ministerial meeting at Chequers is now understood to have reached no conclusions beyond agreement that some amendments to the legislation will be required and that the Report Stage debate of the Bill on the floor of the Commons should be soon—preferably beginning next week, and with an extra day being provided for the debates.

Support

The main difference of opinion in the Government appears to be between Mr. Eric Varley, Mr. Anthony Wedgwood Benn's new successor as Secretary for Industry, and Mr. Harold Lever, Chancellor of the Duchy of Lancaster and financial adviser to the Prime Minister, with some support, it is claimed, from the Treasury.

The attitude of Mr. Varley, backed by Mr. Michael Foot, the Employment Secretary, is that in spite of the opposition of the CBI to various parts of the Bill—they and the Prime Minister will meet CBI representatives this week, probably to-morrow—there should be hardly any changes.

Mr. Lever is said to want radical altrations, particularly to the clauses giving the Industry Secretary power to compel companies to disclose confidential information to their employees. Mr. Varley, however, is reported to be determined to keep any changes to an absolute minimum.

The Prime Minister will obviously have the final say. He is thought likely to choose a course laying down voluntary disclosure of information as the norm and limiting Mr. Varley's powers of compulsion.

A good deal of work by Ministers remained to be done on the Bill, quite apart from their discussions with the CBI which will also be attended by Mr. Denis Healey, the Chancellor of the Exchequer, at a meeting later in the week with the TUC economic committee.

Yesterday Mr. Michael Heseltine, the Opposition spokesman on Industry, said he wanted urgent talks with Mr. Varley to put before him "a programme to restore confidence to British industry."

Earlier Mr. Heseltine said that the PM had promised the Industry Bill would be amended if it did not comply with the White Paper, the Regeneration of British Industry.

"I believe the extension of time on the Report Stage is the first indication that he now intends to confront the Left wing and at the same time honours his pledges. We cannot say yet whether three days on Report Stage is enough until we see the form the amendments take."

Importance

Trouble could develop between Left wingers and Mr. Varley if substantial changes are made to the Bill. The Left wants him to keep the Bill in its present form.

Mr. Foot described the Bill at the week-end as "of supreme importance in the programme of the Labour Government." He told a miners' gala at Cardiff that he believed the Bill should be carried to the statute book "without watering-down or anything of this sort."

Government expected to ease terms of Insurance Bill

BY STEWART FLEMING

INSURANCE companies are expecting the Government to table fundamental amendments to its controversial Policy Holders Protection Bill to make the proposed legislation more acceptable to the industry.

The Bill reaches the report stage in the Lords to-day and the Government and the industry have reached compromises on several of the proposals, including the crucial Clause 16, which provided for the rescue of insurance companies in financial difficulty before they went into liquidation.

Mr. Ken Allen, chairman of the Life Offices Association said yesterday of the expected changes that he thought they met a large part of the industry's detailed objections. However, sections of the industry still maintained that this type of legislation was not desirable in principle.

When the Bill was published in April and Clause 16 was included, the British Insurance Association campaigned against it. Leaders in the industry said that it was unacceptable while Clause 16 was included and began to plan to try to secure a Parliamentary defeat for the Government if changes were not made.

The Government said in the Queen's speech in October that it would introduce legislation to protect private policy holders of insurance companies which failed. The announcement came after another spate of failures or near failures of insurance companies—most notable of which was the collapse of National Life, the life assurance company in Mr. William Stern's financial group.

Collapsed

This company is still excluded from the new rescue proposals because it collapsed before the Government announced its plans.

Under the Bill, rescues of insurance companies in difficulty are to be paid for by a levy on the insurance industry. The companies say that in the event of a rescue no more than 90 per cent. of benefits to which an individual policyholder is entitled should be paid out.

Clause 16, however, gave the statutory board, which is to administer the levy, power to rescue companies "at risk" but before they had passed into liquidation.

The industry objected on the grounds that this could, in effect, permit the rescue of insurance companies, including their shareholders, trade creditors and corporate and not just individual policy holders. It said that in this way the Policy Holders' Protection Bill would cease to be limited to the protection of private consumers and become much more expensive to implement.

In May, the Government withdrew Clause 16 (while continuing to describe it as "essential") in order to try and reach agreement on an amended version. It is understood that a compromise has been reached which will provide that before the statutory board can be called in, an insurance company in difficulty will have to go into a form of provisional liquidation.

The Government is also believed to be planning to drop another controversial proposal—Clause 14—which gave the Secretary of State the ability to change the powers of the administrating board by statutory instrument.

The industry feared that the Government was taking powers which could enable it to extend vastly the scope of the rescue proposals. It believed that new legislation would be needed to do this if the clause were eliminated.

£ in New York

—	June 13	Previous
Spot	\$2.2225-2235	\$2.2270-2290
1 month	0.90-0.80 dis	1.02-0.92 dis
3 months	2.85-2.75 dis	3.00-2.90 dis
12 months	11.15-11.05 dis	11.40-11.30 dis

Snags ahead for TUC pay talks

BY OUR LABOUR STAFF

THE TUC and CBI will this week open a new phase of key negotiations aimed at reducing the level of wage settlements, currently running at about 30 per cent.

But these talks, called at the invitation of the TUC, could face a severe set-back even before they begin on Wednesday evening.

For the annual conference of Britain's second largest union, the Amalgamated Union of Engineering Workers, which opens in Hastings to-day is set to discuss, and the signs are it will carry, a motion from its technical and supervisory section (TASS) calling for the rejection of "the concept of the social contract."

An anti-contract decision from the AUEW may well produce waves of reaction at other union conferences. In particular, Mr. Jack Jones, architect of the contract and prime mover in negotiations for more effective guidelines, could have greater difficulty in securing a pro-contract line from his Transport and General Workers Union biannual conference in a fortnight's time.

In the meantime, however, he will continue promoting his suggestion of common flat-rate pay increases for all workers with the level of payment negotiated with the CBI and all pay disputes referred to binding arbitration.

Although not yet adopted by the TUC—indeed, some craft-based unions oppose it on the grounds that it would upset pay differentials—the "Jack Jones" plan has emerged as the front runner among several ideas to be considered by the TUC General Council next week.

The CBI starting point in the negotiations will probably be their recently agreed policy of seeking to negotiate a fixed percentage limit for pay deals, reviewable each year and designed to reduce inflation to no more than 5 per cent. within three years.

The need for tighter wage guidelines than those embodied in the social contract is underlined by several sets of wage negotiations taking place over the next week or so as the annual pay round draws to a close.

In addition to the railwaymen's continuing pay dispute, leaders of 400,000 local government white collar workers are threatening industrial action unless they receive an improved offer to their 35 per cent. demand at talks to-day. An offer of 21.7 per cent. has been rejected.

Steeworkers and merchant navy seamen also have pay claims for demands of 30 per cent. or more outstanding.

Labour News Page 5

More competitive approach

BSC adopts flexible price policy

BY KENNETH GOODING, INDUSTRIAL CORRESPONDENT

THE British Steel Corporation is to cut the price of products from its strip mills division as part of a new policy aimed at a more flexible and more competitive approach to pricing.

It is offering temporary rebates on cold reduced coil and sheet and hot rolled coil and sheet in a move to compete more effectively against imports which go mainly to motor manufacturers and makers of consumer durables.

Some other products will go up in price, adding about £20m. to annual revenue.

Break-even

The prices package is one element in a determined attempt by the BSC to cut losses currently running at around £3m. a week which would lead—taking the most pessimistic view—to a loss of more than £350m. in the financial year. The corporation is taking steps to reach at least a break-even situation.

The corporation appears to have convinced the Government at last that it should be allowed to follow a more flexible pricing policy. Mr. David Waterstone, managing director—commercial, said: "We have been fighting to price on a more competitive basis. This is a step in that direction."

The Corporation has been facing heavy competition, particularly from West Germany and the Benelux countries, in strip mills products. Imports currently account for half the cold reduced steel market, for example. At the same time its strip mills are running at below 50 per cent. of capacity.

It judges, however, that the contracts for overseas steel signed by U.K. customers during the boom period are beginning to run out and it has launched a cut-price offer.

All orders accepted for delivery between June 16 and November 1 will be entitled to rebates of £10 a tonne on the price of cold reduced coil and sheet and £15 a tonne for hot rolled coil and sheet, representing about 8 per cent. and 13 per cent., respectively, off the present basis price of these steels.

The BSC estimates that the strategy can add between £3m. and £6m. to the strip mills division's revenue during the next quarter. The situation will be assessed in October to see if the scheme should continue.

The Corporation recognises that its action might start a price war among European steel producers, but "we have pitched the prices at a level which will discourage undercutting," said Mr. Waterstone. The prices going up remained competitive with those elsewhere in Europe.

The products involved are pig iron, up by an average of 24 per cent., railway rails, about 16 per cent. and forging ingots up 10 per cent. There are also changes in the prices for some sizes of structural steels. These are "selective and made where the market will stand it."

The strip mills division also hopes to push up production by going hard for exports and is aiming for more reliable delivery and better quality control.

The Corporation as a whole is going all out for exports to compensate for the U.K. downturn in demand and hopes that they will reach 3.5m. tonnes this year against 2m. last year. Pricing is paying its part and the BSC is "working on rock-bottom prices in the U.S.", according to Mr. Waterstone.

He did not expect any recovery in U.K. demand until at least the middle of next year "and perhaps even later."

Production figures for last month show the size of the Corporation's problems. Weekly output for the industry was down 21.6 per cent. on the previous month and 24.4 per cent. below that of May last year. Last year was a poor year for the U.K. steel producers with production at 22.4m. tonnes or 16 per cent., down on 1973.

Previously, although nominally free under the European Coal and Steel Community regulations to fix most of its own prices without referring them to the U.K. Government, the BSC had to fight hard to get the increases it has needed. There have been many recent occasions when it had to compromise on the level of price rises after discussions with the Department of Trade.

Now it seems set to enter a new era, one where the Government will apparently take on less of an interventionist role in the Corporation's pricing policies.

Our Sheffield correspondent writes: The BSC price increases would make it difficult for some forgers and re-rollers who are dependent on BSC for supplies to [illegible] in business, Mr. Lawrence Mealey, chief executive of Doncasters Sheffield said yesterday.

Difficulties

He was highly critical of the BSC decision to impose some of the British increases on steel where it holds a virtual monopoly. Doncasters Sheffield, heavily involved in work on North Sea oil orders, faced price increases for some grades of steel of about 60 per cent. since last December.

The increases made it hard to continue the build up of a successful export market and presented difficulties with customers who ordered before the BSC price rise in January.

Editorial comment Page 14

LOMBARD

Inflation—where the guilt lies

BY C. GORDON TETHER

IF IT is possible for the Chancellor of the Exchequer to give an undertaking "to reach conclusions with a view to halving the rate of inflation in the next 12 months," why are we now in the grip of an inflation so closely resembling the runaway type that the country is in danger of experiencing total monetary collapse?

One of the most infuriating aspects of the contemporary British scene is the way in which politicians are forever haranguing the nation about the inflation menace as though no real blame for that phenomenon is attached to themselves. It is now 15 months since the Labour Government came to power. Yet hardly a day passes without a Minister issuing a grave warning about inflation couched in such terms as to foster the impression that, as it is the behaviour of the public which is primarily to blame, only a change in public attitudes can bring an improvement.

For their part, the Tory leaders—having the advantages of being out of office—apportion the responsibility between the Government and the nation at large. But they omit to mention that, during their three-and-a-half year stint, that ended early last year, the inflation rate almost doubled to climb well into the double figures "danger zone."

And, as they will know, the foundations for that performance were well and truly laid when they decided, after taking office in mid-1970, to let dogma take precedence over realities and hand over all responsibility for wage settlements to unions and managements.

Admitting it

The only satisfactory way to deal with a threat of runaway inflation as I was continually pointing out when we still had to break the "double figures" barrier, is to prevent it emerging. And since there is no duty that rests on Governments more squarely than taking proper care of the cornerstone of the economic, financial, political and social edifice—the money unit—the main responsibility for the present frightening situation, lies with the political leadership.

The Chancellor tacitly admits this, indeed, by making a pledge to halve the inflation rate within a year. For if the Government can make a commitment of this kind now, it could have done so before. Yet what it was actually doing was to repeat the Tory blunder of allowing doctrine to triumph over commonsense and pinning its flag to collective bargaining on the [illegible] that resorting to incomes control would be disastrous. What, it may well be asked, could have been more disastrous than doing without incomes control?

And all this time, let it be remembered, the Opinion Polls have been consistently demonstrating that the nation's whole-hearted support would be available for a concerted and fair-minded drive to halt the wages-prices spiral—such is public concern about the fall in the value of money and its debilitating repercussions.

It is something, of course, that the Government has at last recognised that it ought to be doing more than standing idly by while the rampages of inflation carry the country nearer and nearer to the brink of the final catastrophe. But it is as well to understand that, due in no small measure to the prolonged delay in coming to grips with the problem, the cards are now stacked against Britain in the inflation tussle sense in a way that they are not for other industrialised countries.

Against tide

The fact that Britain is having much less success than most of them in slowing the wages-prices spiral is, no doubt, partly attributable to the superior quality of their economic management. But it is also true that there are at least two important respects in which we are having to swim very much against the tide whereas in their case it is the other way round.

In the first place, owing to the U.K.'s deep involvement in the international banking system, the efforts being made here to combat the rise in prices are being seriously impeded by the behaviour of the exchange rate whereas in many other cases they are being materially reinforced by it. In the second place the considerable assistance that many industrial countries, outside the EEC, are getting from the headlong fall in food prices on world markets, is largely denied to Britain by reason of her participation in the common agricultural policy of the EEC.

The moral of the story—that the whole nation is apt to have to pay a terrible price for an official failure to see that a heavy responsibility rests on the State to safeguard the monetary unit—hardly needs to be underlined. If there is any capacity for learning from experience in Britain's corridors of power—and one can be forgiven for sometimes wondering whether there is—what is happening now should surely ensure that this obligation is never again overlooked in the wanton fashion it has been in recent years.

THE WEEK IN THE COURTS

Justice and the citizen—a new code of practice

BY JUSTINIAN

LAWYERS, LIKE any other professional men, tend to take themselves as well as the practice of their profession very seriously.

Whenever their practices are under fire from outsiders they look to the law, with which they have some familiarity and some hope that it will protect its own kind, to act as their protector. And they rationalise any legal protection which is afforded as being for the public benefit.

The latest working paper of the Law Commission, in its drive towards a codification of the criminal law, reviews the means the law employs to protect the administration of justice*

Running throughout the Law Commission's proposals is the thought whether law is to be founded entirely on public policy, that is, to protect the private rights of parties to litigation and the public interest to maintain order, or whether the administration of justice is being viewed as some kind of sacred cow to be protected for its own sake.

There is always a tendency among lawyers sensitive of the institutional machinery of which they are a part, to want to prevent interference with the administration of justice beyond what is reasonably necessary for that purpose.

Rights

Justice is not a cloistered virtue, but is part of the machinery society devises for its purpose to regulate the rights of citizens as between themselves and with the State. Justice is not made for lawyers. Lawyers are made to promote the interests of justice.

With those general principles in mind, most of what the Law Commission proposes is unexceptional. It rationalises a branch of law that has produced a degree of uncertainty in the breadth of its ambit.

In proposing specific offences, the Law Commission seeks to produce, and succeeds in producing a coherent and intelligible code of practice by which the citizen may know when and how he may run foul of the administration of justice.

For all proceedings in civil and criminal courts there are to be offences dealing with perjury (the ingredients of that offence are redefined to meet modern conditions); tampering with or fabricating evidence; keeping witnesses away from attending court; intimidating litigants; threatening or bribing the court; and publishing material which creates a risk that the course of justice will be seriously obstructed or prejudiced, intending to pervert the course of justice; these are the main offences prescribed.

The Law Commission proposes a "rational system of penalties" for these offences. Working from the most serious downwards, it starts with the crime of perjury and alights on the maximum of 7 years' imprisonment for that crime.

Perjury is regarded as the most serious of the offences of perverting the course of justice—no doubt because of its defilement of the religious oath taken by the perjurer.

The Law Commission in an earlier working paper had recommended that the maximum for perjury in judicial proceedings should remain where it is at the moment, and it appears to have received no representation to the contrary.

By what criteria the Law Commission has measured the appropriate maximum penalty are left unrecorded.

Statutory maximum penalties are generally regarded as absurdly high, such that the newly formed Advisory Council on the Penal System is to be asked to examine this topic as one of its first tasks.

Proposals made by the Law Commission in relation to a whole range of crimes can then be properly scrutinised.

The Law Commission then turns its attention to the question of further offences specifically referrable to criminal proceedings.

It proposes to make the interference with witnesses giving information to the police and the giving of false information to the police specific crimes.

It reaffirms two existing crimes of a) assisting a person believed to be guilty of an arrestable crime and b) compounding an arrestable offence.

Few would cavil with the need to bring penal sanctions in to play to prevent such conduct. But the Law Commission lapses, in its commendable effort not to broaden the scope of the criminal law unnecessarily, when it deals with bail.

There is a sensible and growing practice among magistrates of granting bail to accused persons without the requirement of sureties. This is in main an acknowledgement of the fact that in these days sureties cannot effectively have any control over the person for whom they stand bail.

Instead accused are bailed simply in their own recognisance, which is a recognition that the bailed person is liable in the fixed sum if he does not answer to his bail.

If the bailed person does not turn up to stand his trial the police then have to search for him and bring him to court under arrest. The court cannot commit the defaulter to prison forthwith. It can declare that the recognisance be forfeited, but even then cannot commit him to prison without holding an inquiry into his means and without considering other means of enforcing the monetary penalty.

In these circumstances the Law Commission, realising that the system of personal recognisance is for all practical circumstances unenforceable or largely ineffective, proposes to create a new crime of failing to answer bail with the intent of avoiding trial.

In so proposing, the Law Commission endorses the recommendation of the Home Office working party's report on Bail Procedures in Magistrates' Courts.† It prescribes a maximum of one year's imprisonment for the offence.

Absconders

This all looks like an unwieldy sledgehammer to crack a nut. Absconding on bail is not a frequent occurrence. Some absconders, but only a few, are never heard of again. Most of them are eventually caught and brought to court.

Is it necessary to add a further charge because they failed unaided to stand their trial? To the extent that they should be further punished for failure to obey the court's order, the penalty on conviction for the crime with which they were originally charged can reflect the additional inconvenience of having had to search for them.

And if they are acquitted of the crime, is it right that the law should penalise them when they should never have in the first place been restricted in their freedom?

At a time when there is a desperate need to reduce the prison population—the Minister of State at the Home Office last week gave the gloomy news that the population is nearly 40,000 after a recent drop in numbers—we should be chary of imposing further imprisonable offences.

Failure to answer bail should ordinarily lead to forfeit of the accused's recognisance, and failure to pay should not become imprisonable; a fine should suffice.

The Government is proposing to introduce a Bail Bill in its legislative programme in the next session of Parliament.

It will be interesting to see whether a liberal Home Secretary will accede to an illiberal measure proposed by two separate committees.

* *Working Paper No. 62: Criminal Law: Offences relating to the Administration of Justice. HMSO, 65p.*
†*HMSO, 1974.*

CRICKET BY TREVOR BAILEY

England should reach fina[l]

THE EASE and completeness of the West Indian victory over the Australians in the Prudential World Cup makes me fancy England to beat Ian Chappell and Company at Headingley on Wednesday, and thus reach the Lord's final next Saturday.

My hopes are based on three fundamental weaknesses which the Carribbean country cricketers ruthlessly exposed.

First, the Australian batting, apart from Greg Chappell, is short of genuine class, while their lengthy tail looks vulnerable when required to chase runs.

Secondly, they have not yet really come to terms with the tactical requirements of limited over cricket. Their bowlers are more concerned with trying to dismiss the opposition than from preventing it scoring, while some of their field placings are open to criticism.

Finally, if they choose the same side, their attack, apart from Thomson, Lillee and Walker, is suspect.

And when one appreciates that Lillee's ten overs on Saturday cost 66 runs, this should not be beyond England, even though nobody can hook as well as either Fredericks or Kallicharran.

In addition, the England team know this form of the game, have three resounding victories behind them and possess a tight attack. The main danger is an early collapse due to the physical and psychological threat of Lillee and Thomson.

The West Indies demonstrated conclusively that this pair can be played, and also punished, but not by the faint-hearted.

Julien strikes

Having won the toss on a hot, slightly overcast day, Clive Lloyd put the Australians in, an entirely logical move, and these conditions suggested there might be a little help for the pace bowlers in the opening stages.

Although this proved minimal, Clive could hardly have envisaged a better start, as Julien struck in the first over. Roberts, bowling very fast, trapped Turner in front and both the Chappells were caught behind off Boyce.

Worse was still to come—at 61 Walters was brilliantly run out and the Australian innings in ruins.

Fortunately for an exuberant capacity crowd, the last recognised pair of batsmen, Edwards and Marsh, staged a typical Australian recovery [illegible] had gone early; the in[nings] [illegible] have ended before tea.

The fifth West Indi[an] [illegible] spot was shared by [illegible] Richards, a friendly [illegible] a flat, non-turning o[ff] [illegible] uncertain line and [illegible] it was the latter who [illegible] only real stand of the [illegible] when Edwards [illegible] attempted his third big [illegible] over.

The Aussie tail [illegible] quietly capitulated [illegible] were all out for 192.

Lillee worked up a considerable pace in his opening spell but Thomson was unable to find his line and was quickly replaced by Walker who captured the wicket of Greenidge.

However, Fredericks and Kallicharran, in spite of some playing and missing, especially against Walker, kept the score moving sweetly along. At tea they were 99 for 1 and the eventual outcome a formality.

The West Indies passed their target in only 46 overs and in the process Kallicharran, with a brilliant 78, showed that Lillee could be hit.

Although both he and Fredericks lost their wickets before final victory, this had no effect on the result.

LAWN TENNIS BY JOHN BARRETT

Ashe burning for the big one

WHILE THE last scenes of the French championships were being enacted at the Stade Roland Garros over the week-end, where Chris Evert (U.S.) and Bjorn Borg (Sweden) both retained their titles, a minor but no less important drama was being staged at Beckenham, with an actor whose presence would dominate any stage.

Watching Arthur Ashe beating his fellow-American, Roscoe Tanner, in two close sets on the fast, true grass in just under an hour of powerful play, I was impressed by the single-minded devotion to a cause that I remember seeing 25 years ago from another American.

In 1950 that graceful racket artist Budge Patty forsook the bright lights that were his way of life for a régime of monastic dedication and training that brought him the French and Wimbledon titles in the same year. In those days there were three clear weeks between the two championships, ample time to make the change from slow clay to fast grass.

When Ashe won the gruelling WCT title in Dallas by beating Borg in the final on May 11 he set Wimbledon as his next target and planned his itinerary accordingly.

So to-day, when he steps on court in the John Player tournament in Nottingham, he will discount the fact that his Beckenham victory won him only £1,000 to the £12,500 Borg won in Paris, because he knows that his grass-court touch will be far more refined and his mental adjustment more nearly complete than most of his rivals.

Spoiled

Jimmy Connors, the top seed at Nottingham, hoped to be in the same situation, but his plans were spoiled by Syd Ball (Australia) two weeks ago at Chichester.

All last week he was hard at grasscourt practice in London with, among others, Buster Mottram, whose arm injury prevents him from serving with full power yet, and the Americans Jeff Borowiak and Spencer Segura, son of the great coach Pancho.

It remains to be seen whether Connors' immense ability can compensate for his lack of match play.

Also to-day, in Eastbourne, the £11,580 women's tournament brings together every player of note in the world except Margaret Court (Australia), Evert, Goolagong, King, Wade, Casals, Navratilova and Morozova—all there to provide an embarrassment of riches.

It is of course the magnet of Wimbledon that draws them all and, win or lose, the first concern of the players at Nottingham and Eastbourne—not to mention the 200 qualifying candidates at Roehampton—will be to bring themselves to a peak of performance for that greatest of all lawn tennis tests, which begins next Monday.

YACHTING BY ALEC BEILBY

Mr. Heath finds his form

THE BREAK in the weather may have saddened holidaymakers, but it certainly pleased the crews of the 14 yachts sailing in the first two of the inshore British Admiral's Cup team selection trials off Cowes.

The change brought westerly winds for the week-end, replacing the north-easterlies that would have provided little more than processional sailing.

On Saturday, Robin Aisher's Yeoman XX strengthened her already impressive claim to a place in the three-yacht British team by taking handicap honours from Ron Amey's German Frers designed Noryema, the last of the new yachts to join the pre-trial races this season.

Aisher, an Olympic bronze metallist in 1968 and team captain of the 1973 British Admiral's Cup team with his successful lightweight flyer, Frigate, has kept most of his former experts around him and this combined with traditional Aisher dedication to sailing has produced impressive results.

John Prentice's Battlecry led the way home on Saturday, but she gives five feet of rating to Yeoman and her crew had to be content with a fourth place. Will this latest Battlecry again have to be content to be the Cinderella of the team, taking the reserve yacht's fourth place, or will her crew manage to finally fit the glass slipper?

On Sunday the wind was fresh from the west as the fleet set out on a westerly course, Noryema spending valuable time on the Bramble Sand, a shallow patch where cricket has been played at exceptionally low tides.

More Opposition also touched bottom, but freed herself, only to break her main boom at the starting gun. Amazingly, her crew repaired it in about five minutes.

The start, confused by some misunderstandings over the course instructions, divided the fleet into two groups, and Bill McCowen's Synergy, first in last week's opening offshore trial and last yesterday, led the way round the Solent, pursued by Tony Morgan's More Opposition.

Battlecry and Morning Cloud duelled for third place, Mr. Heath and his crew holding the handicap advantage over those around them. It is obvious, as in previous years, that her owner and crew have found their form at the right time.

Morning Cloud took first place on handicap, adding this to her fourth place in last week's ocean race and an eighth on Saturday. On points she shares the top place in the trials with More Opposition, and Synergy, second yesterday, lies second overall.

Yeoman, faring badly, shares third place with Noryema; but Yeoman, suffering from the confusing start, must still be the closest to certain selection if consistency in performance is to count.

French buy ketch for FT Clipper race

WHILE WORK continues round the clock in Melbourne to help the Australian yacht Anaconda II, on her way to London for the start of the Financial Times Clipper Race, it has been announced in France that negotiations between the owners of the British yacht Burton Cutter and the French wine companies Kriter and Patriarche, have been successfully concluded.

Burton Cutter, the maxi-sized ketch that competed in the first and last legs of the Whitbread Round-the-World race, skippered by her owner, Leslie Williams, two years ago, will be chartered by a French crew and renamed Kriter II. They are determined to win the overall prizes against the Army entry, Great Britain II, which took the honours in the 1973-74 race when skippered by Chay Blyth and sailed by his crew of paratroopers.

Michel Etevenon, who has been seeking a yacht for the Kriter crew for some time, sent Olivier de Kersauson to the Mediterranean for trials aboard the yacht while she was on the way for the summer charter season in Greece.

Kersauson, one of the strong men aboard Eric Tabarly's Pen Duick VI during the Whitbread race, pronounced the yacht capable of overall honours.

Former French Marine commando, Michel Doucin, is preparing the 45-ft. ketch Veline for the race at Cherbourg—with an entire crew of handicapped people. Doucin, who lost an arm on active service, has equipped the yacht with special fittings, lifelines, and aids.

RACING BY DOMINIC WIGAN

Whirlow Green for Winter

JOHN WINTER, despite spending much of his time and energy on behalf of the Bloodstock and Racehorse Industry's Confederation, still finds time to train with a good deal more success than many of his colleagues. To-day, his Whirlow Green may provide the best bet at Nottingham.

I cannot see this smart four-year-old half-brother to Grundy failing in the principal event at the Midlands track, the Nottingham Festival Handicap.

Whirlow Green, whose best performance last season was when he comfortably disposed of Baggin Time over nine furlongs at Rippon in August, returned to winning form in emphatic style at Doncaster three weeks ago, giving Kithairon, to whom he was conceding 11 lb., a two lengths beating in the seven furlongs Arksey Handicap.

Whirlow Green—ridden as to-day by Winter's stable jockey, Brian Taylor—was not hard-pressed to lead from start to finish, and win in a good time.

The opposition here appears no more formidable than at Doncaster and, with the fast ground which suits him best, Whirlow Green should have few problems. I expect to see him followed home by another course winner, that popular veteran Daniel.

Willie Carson could land the Long Eaton Plate on the Barry Hills-trained TV *Sunday* before going on to complete a double at Windsor's evening meeting as *Jeanie Duff*, who may well be something to bet on in the Bourne End Plate.

Looking ahead to Royal Ascot, it seems more than probable that Lester Piggott will wind up as top jockey for the meeting. At the present odds of 3—1, he appeals as an outstanding bet.

Five likely winners for him are Imperial March (Queen Anne Stakes, Tuesday), Giacometti (Prince of Wales' Stakes, Tuesday), Rose Bowl (Coronation Stakes Wednesday), Fandango (Jersey Stakes, Wednesday), and Sagaro (Gold Cup, Thursday).

If Piggott fails, veteran Frankie Durr (8—1), who benefits from the injury to Eddie Hide, will probably be the cause.

NOTTINGHAM
2.00—TV Sunday
3.00—Whirlow Green**
3.30—Anemos
4.30—Jim Coiner

WINDSOR
6.45—Pink Note*
7.15—Ifop Buyone
7.45—Pala Bambino
8.15—Ocaso
8.45—Everholt
9.15—Jeanie Duff***

EDINBURGH
7.15—Chaplin
7.40—Future Forest
8.40—Mr. McHandy

TV/Radio

† Indicates programme in black and white.

BBC 1

9.38 a.m. For Schools, Colleges. 10.45 You and Me. 11.00 For Schools, Colleges. 12.55 p.m. The Sunday Debate. 1.30 Mary, Mungo and Midge. 1.45 News. †3.58 Regional News (except London). 4.00 Play School. 4.25 The Clangers. 4.35 Jackanory. 4.50 Blue Peter. 5.15 Hong Kong Phooey. 5.40 Roobarb.
5.45 News.
†6.00 Nationwide.
6.50 Star Trek.
7.40 Whatever Happened to the Likely Lads?
8.10 Panorama.
9.00 News.
9.25 Kojak.
10.10 Churchill's People.
11.05 Choices for To-morrow.
†11.28 Regional News.

All regions as BBC 1 except at the following times:

Wales—1.30-1.45 p.m. Pili Pala. 6.00-6.10 Wales To-day. 6.10-6.25 Party Conference: reports on the Conservative Party in Wales Conference at Aberystwyth. †6.25-6.50 Nationwide. 6.50-7.20 Heddiw. 7.20-8.10 Star Trek. 11.05-11.28 Farming. †11.28 News of Wales.

Scotland—6.00-6.50 p.m. Reporting Scotland. 10.10-10.50 Public Account. 10.50-11.15 Choices for To-morrow followed by †Scottish News Summary.

Northern Ireland—3.58-4.00 p.m. News. 6.00-6.50 Scene Around Six. †11.28 Northern Ireland News Headlines.

England—6.00-6.30 p.m. †Look North (from Leeds, Manchester, Newcastle); †Midlands To-day (from Birmingham); †Look East (from Norwich); Points West (from Bristol); †South To-day (from Southampton); †Spotlight South West (from Plymouth).

BBC 2

†6.40 a.m. Open University.
11.00 Play School.
†5.00 p.m. Open University.
7.30 Newsday.
7.45 Look, Stranger.
8.10 The Waltons.
9.00 Rutland Weekend Television.
9.30 Horizon.
10.25 News Extra.
10.55 Open Door.
11.25 Closedown: William Squire reads "When to the Sessions of Sweet Silent Thought," by William Shakespeare.

LONDON

9.30 a.m. Schools Programmes. 12.00 Mr. Trimble. 12.15 p.m. Noddy. †12.30 Goodbye Tomorrow. 1.00 First Report: News, FT index. 1.20 Lunchtime To-day. 1.30 The Great Western Musical Thunderbox. 2.00 Good Afternoon. †2.30 "She's Working Her Way Through College," starring Virginia Mayo and Ronald Reagan. 4.20 Clapperboard. 4.50 The Tomorrow People. 5.20 The Ghost and Mrs. Muir.
5.50 News from ITN.
6.00 Today.
6.40 The David Nixon Show.
7.30 Coronation Street.
8.00 Man About The House.
8.30 World in Action.
9.00 Sam.
10.00 News.
10.30 The Streets of San Francisco.
11.20 World Snooker.
11.55 Stranger in the City.

All ITV regions as London except at the following times:

ANGLIA

12.30 p.m. Look Who's Talking. 1.25 Anglia News. 2.00 Houseparty. 2.30 Monday Afternoon Film: "Ten Gentlemen From West Point," [illegible]

ATV MIDLANDS

BORDER

CHANNEL

GRAMPIAN

GRANADA

HTV

SCOTTISH

SOUTHERN

TYNE TEES

ULSTER

WESTWARD

YORKSHIRE

RADIO 1

RADIO 2

RADIO 3

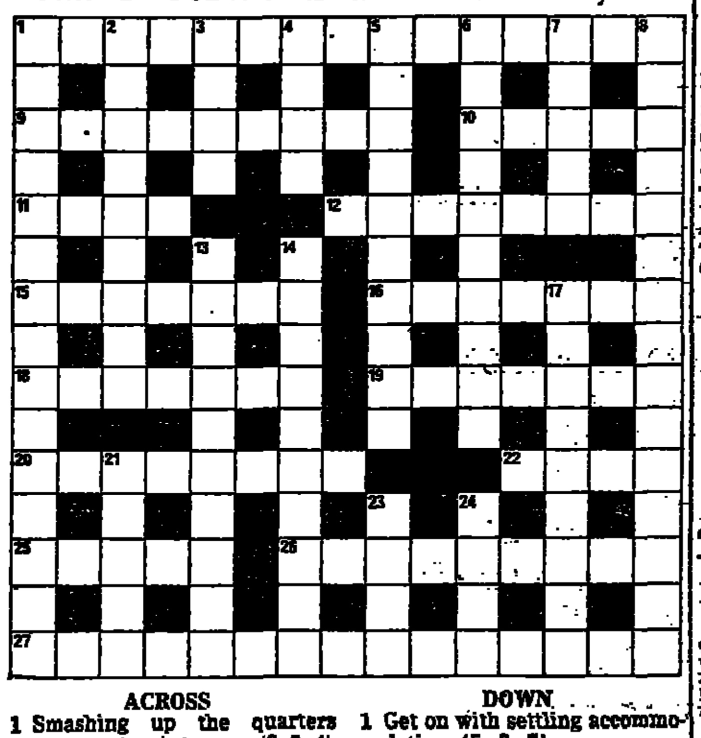
RADIO 4

BBC Radio London

London Broadcasting

Capital Radio

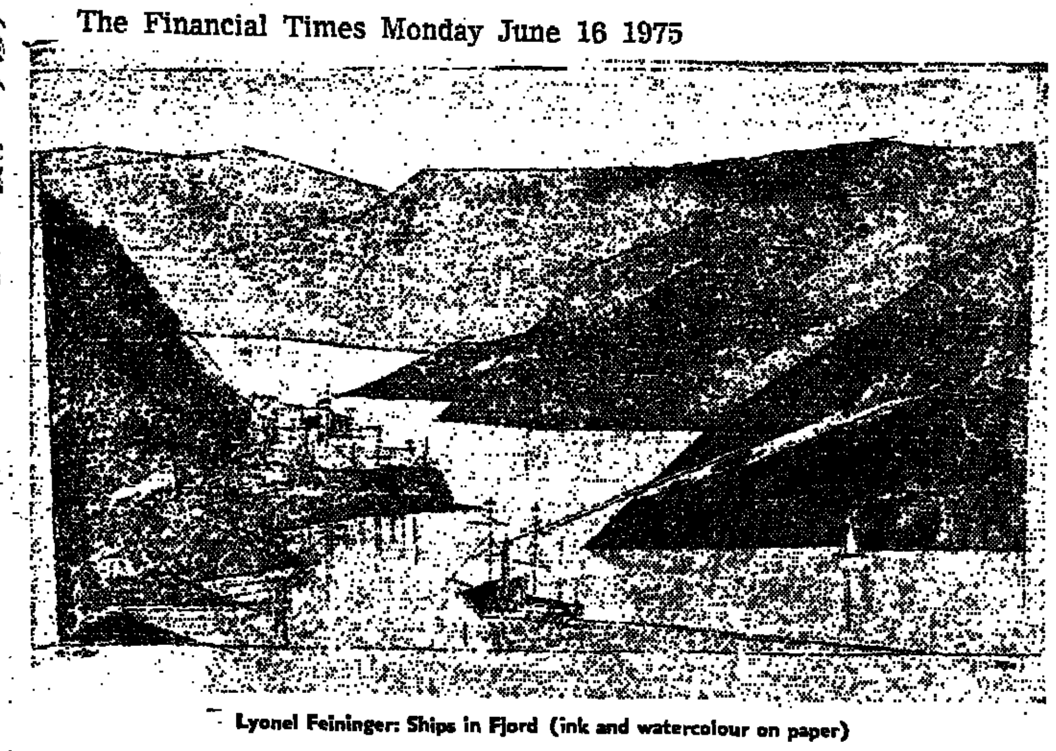
F.T. CROSSWORD PUZZLE No. 2,804



ACROSS
1 Smashing up the quarters and making it known (8, 3, 4)
9 Drink with student—one who has taste (3-6)
10 Provide with oriental witticism (5)
11 Italian magistrate takes track to the east (4)
12 Brewery worker heartlessly let master around (8)
15 Born and die with right to be wanting more (7)
16 One skilled in moving with craft (7)
18 Fat placed around some rope (7)
19 Set free and grant a new contract (7)
20 Avoid urges that bring out young birds (4, 4)
22 Fear-stricken one got married (4)
25 Land which is leased (5)
26 Musical drama converted into action (9)
27 It's good breeding bait taken to chap with line on ship (15)

DOWN
1 Get on with settling accommodation (5, 3, 7)
2 Type of tree which is always untried ... (9)
3 ... although part of it may be tied (4)
4 Not one to drop out (4)
5 Yarn to preclude before start of entertainment—it's worn thin (10)
6 Occurrence usually omitting us in time (10)
7 Burst forth in another uptrend (5)
8 Police foremen? (15)
13 Like tendons manage till repaired (10)
14 One or two about to be married (10)
17 Intend to pass for the time being (9)
21 Stop part of some sentences (5)
23 Eager to know about eastern (4)
24 ... burden on one vehicle (4)

The solution of last Saturday's prize puzzle will be published with names of winners next Saturday.



Lyonel Feininger: Ships in Fjord (ink and watercolour on paper)

Achim Moeller

Lyonel Feininger

by WILLIAM FEAVER

Lyonel Feininger started as a cartoonist. He didn't finish his first oil painting until he was 36. He was a late developer. But throughout his career he retained some of his caricature devices, the bare minimum lines, the tendency to diagrammatise. Indeed, his way of representing towers, skyscrapers and sailing boats had a strong element of scene-setting about it, as though a joke or a drama were about to develop on the spot. Not that this is the way he intended his later work to be regarded. The subtitle to the exhibition of his work at Achim Moeller's gallery is "Visions of City and Sea," a sonorous phrase implying the highest possible intentions. And certainly the work for which Feininger is best known, spires and mainsails cleaving the skies in a kind of searchlight cubism, has no obvious connection with the caricature origins.

Yet there are clues, even in this fairly small exhibition. *The Fisherman*, a drawing made in 1916, some time after he had stopped working for the papers, covers the divide between commercial wit and the development of a more private sensibility. A gaunt angler in a top hat poses with his catch while all around other, near-identical figures watch and fish fruitlessly. From that to drawings in which the figures are reduced to triangulations is only a slight development. And from these to landscapes in which even the sun is squared off is, again, not much of a leap forward.

There is nothing wrong in this—the distinctions so often made between the art of caricature and fine art proper, as between illustration and drawing for drawing's sake, are largely determined by snob values: however Feininger's work does seem to me to be rather a caricature version of vision. There is never the sense of liberation, of imaginative boundlessness, of fierce intensity that true vision involves. His paintings and drawings appear mapped out, meticulously refined, with every line scratched in as though etched. Slight bleedings where the ink spread over the wet paper give occasional suggestions of improvisation, but in general the drawings are setsquare, tidy and thoroughly non-accident prone. Somewhere along the line curves appear to have been eliminated from his work, not so much to make his effects more dynamic as to tighten up the manner and provide style. Thus every move and stroke appears a foregone conclusion.

There are only a few paintings in this exhibition so it is not possible to look too closely into the differing degrees of finish Feininger considered necessary in the two media. However there are enough drawings, both works that are ends in themselves and studies for paintings, to give a good idea of his strengths. The best are undoubtedly the most fancy-free designs, in particular a drawing of two cargo boats chugging over a strange, curved northern sea. There is a lightness of touch here which is dispelled in the more standard "visionary" architectural schemes.

Lyonel Feininger is at Achim Moeller until July 19.

Aldeburgh Festival

Richter

by GILLIAN WIDDICOMBE

To Blythburgh, once a flourishing medieval port, now a pretty village mid heath and marsh. T... Blythburgh church, where ... parks bumpily in a rough clover meadow, sits on oak benches as old as they are uncomfortable, and stares at a superb wooden ceiling with frescoes and carved angels, as good for sound as visually beautiful. To Blythburgh, last week, to hear Sviatoslav Richter play a stunning Beethoven recital.

Richter had not played in Britain for five years, and kept the audience waiting for nearly 20 minutes. Eventually he came on, looking relaxed and genial. Lights were turned down, so that as the evening darkened, spotlights in the transept lit him only as a black silhouette. A dramatic evening. Bedazzled, in several senses, we stared rapt at the gruff, inscrutable profile, sharing imaginings of demon rage and serene dreams.

The *Hammerklavier* was the evening's throne, but first Richter played the C major Sonata, Op. 2, No. 3, and three Bagatelles from Op. 1 to 6. The schoolish impulsive C major suits Richter perfectly as a beginner, with its nonchalant opening phrase and so many of the ructions of later sonatas previewed in miniature; Richter can test his emotional temperature without dredging his fervour. I remember a Festival Hall recital, say ten years ago, when he gave a wild, angry performance, like a mad tiger; but last week's was more mellow, bountiful, capturing the playful humour in lyrical phrases, the pressing energy of rapid scales, and the whiplash attack of snapping cadences. The exposition repeat was turned to perfection; phrase-colouring similar but never the same—the musical equivalent of the same picture viewed from a new angle. Fascinating to realise that no matter how spectacular some of his pianistic effects—twinkling trills driven so hard that they bite the piano tone like whirling drills—there is never the impression of virtuoso show. Fascinating also, to observe in this sonata a clear demonstration of Richter's rhythmic energy rising. Often he pitches into a definite accelerando which in lesser hands would be mere rushing, but in his is fiercely driven to the next point of repose.

The *Hammerklavier* was wonderful, powerful, in detail indescribable. A hungry, tortured performance, in general, but the slow movement as calm in reverie as the opening octaves were pounding with loud thunder. But its most rare feature was that improvisando, searching quality — when Beethoven hesitates, wonders, wanders what next?

Richter approached these juxtapositions rather simply, avoiding clever emphases and sophistry. He could play straight through the Beethoven sketch books, and make each fragment, and its reworking, sound alive and amazing!

Greenwich Theatre

The Knight of the Burning Pestle

by B. A. YOUNG

Beaumont and Fletcher's City comedy makes an admirable relaxation for a summer evening. As it deals with a performance by an amateur company it does not call for any subtleties of playing; all that is required is apt invention and reasonable restraint.

"Reasonable" is not too restrictive, for most of the comedy of the play is founded on the antics of an intrusive citizen and his wife who insist that the prepared production (a conventional romance about an apprentice lad who steals away with someone's daughter) shall be altered to give a good part to their own apprentice Rafe (Gordon Reid).

The company is surprisingly decent about it. They don't actually involve Rafe in the plot of their play, but they are happy to leave the stage every now and then to make room for some fresh caprice of their patron's. Rafe begins as a knight, a Grocer Errant as he calls himself for he is most loyal to his Company, and on his very death-bed, an arrow transfixing his head from side to side, he prays that his soul may go to Grocers' Hall. Later he has more extravagant duties—to kill giants, to marry a king's daughter, to drill a company of volunteers like Col. Heath of the H.A.C.

Sam Walter's cheerful production is full of music. Merrythought, one of the citizens (David King), seldom speaks at all, but prefers to sing through life, naturally losing his wife, his children and his fortune as he does so. But the others sing too, sometimes alone, sometimes in concert, and a lady guitarist, Nola York, sits at the side of the stage to play their accompaniments.

Robert McBain and Linda Polan are the two intruders, dictatorial but good-hearted old numbers. Hazel Clyne is the girl the young men fight over in the persons of Geoffrey Beevers and Michael Richmond; Roger Brierley is her father; Merrythought's wilful wife is Prunella Scales, and his younger son Michael is Petra Markham, who undertakes all the boys' roles in the play with wide-eyed readiness. They hit just the right note of broad comedy without condescension. I recommend it

Liverpool Everyman

Under New Management

by MICHAEL COVENEY

Last week in the House of Commons, during a debate on the future of the nationalised industries, one Tory MP congratulated another on seeming to belong to "that growing band of Tory red-shirts who will be fighting for the thesis of worker participation as the alternative to the declining and somewhat discredited forms of managerial capitalism which are espoused by the CBI." At the end of C. G. Bond's spirited play about the famous factory occupation at Fisher-Bendix in Kirkby, the days of the old capitalist managers are declared to be "over." And, as far as that particular factory is concerned, so much is true. The sins of 15 years of bad management are never concealed in the play, but Mr. Bond has concentrated on distilling the essential character of a place of work which was nearly destroyed.

It is written subsequent to extensive interviews with the stewards and representatives of the shop floor at the KME factory (as it is now known). A detailed reconstruction of all the events would be clearly impossible, so the playwright adopts methods tested and true to convey essential information. A cartoon-like version of Harold Macmillan wanders around a huge washing machine, muttering about "shambolic" management before inserting a sixpence and climbing aboard for speedy revolution. Simultaneously, almost, we learn that between 1961 and 1971 the factory had 12 general managers. "If one arrived who had any ability, he was not allowed to use it," declares one of the lads, pained at the thought of time and money wasted on the stagnation of sinks, gas fires and cookers.

He and his colleagues could obviously have been forgiven for wondering whether, perhaps, the place was operating as a tax dodge. These emotions of anger and insecurity are forcefully conveyed by the company as they close ranks and, in a strikingly staged sequence, chug energetically over the scaffolded design of Graham Barkworth and Rowena Parr before arriving en masse with notice for the bosses to quit. The 2,000 work force of 1963 has by now dwindled to 800 and the plant taken over (in 1968) as a subsidiary of BMC.

The second half flags a little and threatens to get bogged down in an over-extended show-biz parody of the buying and selling game among private companies. But the aims of the occupation are clearly delineated, and they survive yet more bureaucratic inefficiency ("Harold King, Jesus wept; look at the dreams that you've gone and wrecked"). The play's conclusion is an optimistic and good-humoured boisterous semi-colon.

This theatre itself will, from the Autumn, be under new artistic direction. Alan Dossor leaves after five years of work aimed at placing the theatre at the centre of Liverpool life. In that respect, his boisterous production is consistent with a policy that has produced fine work not only from Mr. Bond, but also from John McGrath, Adrian Mitchell, Willy Russell and countless outstanding performers. The present company is impressively flexible and their work on Friday night was rewarded with a rousing ovation from the people they both serve and represent.

Nottingham Playhouse

Walking Like Geoffrey

by MICHAEL COVENEY

"A Tale of Old Gotham" is the sub-title for the Playhouse's contribution to the city's annual Festival which opened on Saturday. "Even England looks all right when the sun shines," remarked some lugubrious character as the bands played and the beer flowed. Or flew, perhaps. I hesitate because the play under review was written by Ken Campbell (in collaboration with Dave Hill and Andy Andrews): much of the two hours' traffic is airborne and Mr. Campbell has, as the Irish would say, a way with words. Stunt theatre and good muscular turns of phrase are rare enough in any contemporary drama; to have both in the one show is a rare treat. Shapeless and baggy, like tweed trousers and *Tristram Shandy*, Mr. Campbell and friends have provided perfect (or, rather, gloriously imperfect) holiday entertainment.

Gotham is a Nottinghamshire village whose inhabitants are alleged, in medieval times, to have disported themselves in a mad, or "looney," fashion in order to avoid paying their taxes. Their model is the village idiot. Geoffrey, played with spectacular, blabbering ferocity by Sylveste McCoy as an amalgam of Harpo Marx and Max Wall. But this is to jump

The Entertainment Guide is on Page 9

the gun. Gotham is arrived at by one Adrian Creamwell (Richard Howard), dilettante, and dabbler in The Occult, in the course of his quest for the origin of a Druidic curse that has played havoc with the aristocratic family tree of Joderell. Mr. Campbell's play at the Royal Court last year, *The Great Caper*, charted the progress of an alternatively-cultured Boswell and Johnson in their search for the Perfect Woman; that play was, in terms of narrative, stronger and more coherent. But *Geoffrey* has many elements in common with it, and, as Creamwell conjures before us the unfortunate fates of various Joderells, the play is at its strongest in respect of both stunts and words.

Mr. Campbell demands very difficult things of his stage directors. In *The Great Caper* it was required that the search party demolish a wall. Here, at the end of Act I, Sir Eustace Doderell (Roger Sloman) attempts to dodge the curse by "pranging" his soul to another universe—first by juxtaposing excitement at his servants in underwear with the sexless solidity of his wife (Pat Keen), and then by deducing his existence as the element of another person's dream and attempting to destroy the fabric of that dream with excessive actual behaviour. Thus the curtain falls on a scene of domestic carnage and Sir Eustace stabbing himself 30 times. Such amazing events are hard to represent. The director, Richard Eyre does, on the whole pretty well, although he is far more successful at coping with Mr. Campbell's exquisite facetiousness — old Gotham is blessed with not only Geoffrey, but also a fleet of mucking birds who, at regular intervals, drop nasty messages on happy villagers.

The show, as must now be apparent, is wayward and unapologetically rude. The curse is traced by Creamwell to a piece of underhand behaviour by a Doderell that threatens to ruin Geoffrey's romantic prospects. By this time, though, so much energy and time has been esxpended on imitating Geoffrey and thumbing noses at the bowler-hatted taxman (Ralph Nossek) that, in the best Joan Littlewood manner, anything will go.

The show has the vulgarity of McGill cartoons, the latent (and often not so latent) cheerful obscenity of The Cloggies and the vitality and unpredictability to be expected from both Mr. Eyre's company and Mr. Campbell's writing. Puns and good lines abound, a nice one coming from Creamwell himself who, on recounting a boating accident with a precocious maid remembers that he was anxious to hurry home and remove his wet trousers before attracting chaps.

Gissing honoured

The novelist George Gissing was honoured last week at a small ceremony in Chelsea, when a blue plaque in his memory was unveiled at 33 Oakley Gardens, S.W.3. Gissing lived there when he was in his early twenties, from 1882 to 1884. It was then known as 17 Oakley Crescent.

Gissing paid 7s. a week for two rooms to his landlady, a Mrs. Coward. He wrote industriously while he was there and completed his novel, *The Unclassed*. By now separated from his first wife, he found in the house a modicum of calm and creative freedom. He also began at this period to take in pupils in classics, which was to provide him with a livelihood for several years while he fought to support himself from literature.

Last week Professor Pierre Coustillas, the leading authority on Gissing, spoke of his compassion for the poor and his intimate knowledge of late Victorian London, before pulling on the cord that released the Union Jack concealing the gleaming plaque provided by the GLC.

There are already plaques in memory of Gissing in Wakefield where he was born, and in Paris, where he lived for two years.

A.C.

'Overlord' for Berlin Film Festival

The Imperial War Museum announces that *Overlord*, the first feature film to be made under its auspices, has been selected by the organisers of the 25th International Film Festival at Berlin between June 27 and July 8 as one of two new British productions to be shown in competition.

Overlord was produced by James Quinn, directed by Stuart Cooper, and written by Christopher Hudson and Stuart Cooper. It tells the story of a young soldier from his call-up to D-Day and the Allied landings in France on June 6, 1944.

Sadler's Wells Theatre

Moves/Eclipse/Juice

by CLEMENT CRISP

Nederlands Dans Theater's second programme last week made me suspect that the company is currently toying with the Death wish. A kamikaze dive into pretention and fatuity, it started very well with a sure-footed account of Jerome Robbins' *Moves*, that ballet in which silence is a positive accompaniment to dance.

Robbins' theme is that bodies may be seen to respond to each other without music's promptings, and the NDT dancers are alert in their relationships, clean and handsome in their understanding of timing. The quirks and "asides" about movement with which Robbins enlivens his choreographic structure are nicely played—one boy dropping suddenly in the "Dance for Men" and then caught up again in the corporate activity; the isolated boy and girl who dance solo in the duet section as if their partners were there—all these are incidental pleasures in a work that still compels admiration.

Thereafter, all I could admire was the company's dogged persistence when dealing with works by Louis Falco and Margo Sappington which featured the deadlier pretentions of American dance. Mr. Falco's *Eclipse* is burdened with a brutish score by Burt Alcantara that starts by sounding as if Tibetan monks had discovered the possibilities of an echo-chamber, and then degenerates into a remorseless and deafening electronic din. The action, so far as I cared to follow it, comprises prolonged and tedious attempts at copulation by the lovely Mea Venema and Juan Antonio (a guest from Falco's own troupe), amid a handsome set by William Katz made from a patchwork of cloth. Meanwhile, attendant sprites, equally be-patchworked, indulge in frantic and sometimes erotic groping. I found the whole affair purgatorial.

No more enjoyable, to my eyes, the closing *Juice* by Margo Sappington. With a raucous rock score by Michael Kamen, it might pass as a kind of *Dances at a Gathering* for American college students. Athletic grapplings, jumps and twitchings for its three girls and four men were the crass order of things, but the piece was made worth-while by the magnificent performance of Jon Benoit. With his total abandonment to the dance, Mr. Benoit is a tremendous artist. He launches himself into the choreography as if greedy for movement, and he is the justification for an otherwise insufferable piece. Could this, I kept asking myself throughout the latter part of the evening, be the Nederlands Dans Theater I know and love?

Elizabeth Hall

Jean Fonda

by DOMINIC GILL

Chopin's F sharp minor Polonaise can be a wonderfully effective curtain-raiser. It can also, unless the nerve is rock-hard, quite easily misfire: and indeed one had hoped that the French pianist Jean Fonda's unhappy performance of it at the start of his recital on Thursday—nervous, inaccurate, over-pedalled, prosaic, leavened only with a few moments of very un-Chopinesque whimsy—might prove to have been the result of no more than short-lived curtain nerves.

But the three Chopin mazurkas which followed fared no better; disfigured by heavily unrhythmic emphasis, coarse-toned, almost entirely un-nuanced, the dance roots of the music almost untraceable. And Mr. Fonda's account of the *Faschingsschwank aus Wien* was painful to hear: an extraordinary plasticine-fingered creation, cloudy, without shape or direction, variety or inner life. A considerable portion of the finale was improvised, and not convincingly.

I did not stay to hear *Funérailles* or Kabalevsky's third sonata—for this was one of those very rare occasions on which the artiste's first half is so unmistakably crystal-clear in its message that one is fully persuaded to take the second half on trust.

Stratford's royal gala

Tickets are still available for the Royal Gala Performance of Henry V at Stratford-upon-Avon on June 27 to raise funds for the preservation of the theatre. The more expensive tickets include admittance to a Garden Party in the afternoon which the Queen will attend.

Tickets are also available for the Centenary Gala Recital on Sunday, June 29, in the theatre.

HOME NEWS

MP backs move to suppress Crossman diaries

FINANCIAL TIMES REPORTER

MR. TAM DALYELL, Labour MP for West Lothian, who was a friend of the late Mr. Richard Crossman, said yesterday that the Attorney General had a respectable case for seeking an injunction to prevent publication of the first volume of the Crossman diaries on the Labour Government, covering 1964-66.

Mr. Dalyell was a former Parliamentary Private Secretary to Mr. Crossman and for 11 years they shared a house in London. The diaries have already been serialised partly in the Sunday Times.

A spokesman at the office of Attorney General Mr. Sam Silkin confirmed that Mr. Silkin would seek an injunction in the High Court to prevent publication of the first volume of the diaries.

The spokesman said, "This is the Attorney General's decision. He has consulted his legal advisers but had not consulted the Prime Minister or other ministers.

Mr. Crossman's literary executors, his widow Mrs. Anne Crossman, Mr. Michael Foot, Employment Secretary, and the publisher Mr. Graham Greene are to oppose the attempted ban. It is expected that the case, because of its constitutional implications, could eventually go to the House of Lords

Mr. Dalyell said yesterday: "I think that publication might create a tremendous amount of controversy on top of what we already have.

"I have read a great deal of the book. I think it is a great book and should be published, certainly within this decade, but not immediately.

Mr. Dalyell said that Mr. Crossman's book was different from memoirs of other leading politicians including Churchill, Macmillan and Mr. Wilson. "In these memoirs they did not go into anything like the detail, especially about people, that the Crossman memoirs do. The difficulty is a real one especially after the publication of extracts in the Sunday Times.

"There are men of considerable literary ability in this present Cabinet. If direct opinions are to be attributed to people who may have a quarter of a century before them in politics it might inhibit actions in Cabinet.

"In the past I have been ambivalent about publication. But since Patrick Crossman's death and having seen the cold print, I now come down on the other side of the fence."

Patrick Crossman, the 17-year-old son of the late Mr. Crossman, committed suicide while the diaries were being serialised.

Motor-cycle men to meet Varley

By Peter Cartwright

MR. ERIC VARLEY, who has taken over from Mr. Wedgwood Benn as Industry Minister, has rescheduled the meeting over the future of the motorcycle industry—including the Meriden Co-operative at Coventry—to next Wednesday.

Mr. Denis Poore, Norton Villiers Triumph chairman and other members of the Board, the Meriden Motor Cycle Co-operative—each of which was set up with nearly £5m. of Government aid—and national officers of the Confederation of Shipbuilding and Engineering Unions were to have met Mr. Wedgwood Benn on the day on which the Prime Minister's Cabinet changes became effective.

The confederation has been pressing the Government to take further measures to bring the industry into public ownership, while Mr. Poore has argued for the investment of another £25m. to increase the model range and profitability of a three-factory industry.

This includes the two NVT factories in Birmingham and Wolverhampton and the Meriden factory which NVT had planned to close nearly two years ago.

The Meriden Co-operative was uncertain last night which hat it was supposed to be wearing to the meeting. So far, it has been invited only by the confederation, yet its union members are also part owners and they have still to hear from Mr. Varley.

Mr. Dennis Johnson, the co-operative chairman, and Mr. David Jones, the new professional managing director appointed from the motor industry, are likely to represent Meriden management if invited in that capacity.

More aluminium but trade contracts

BY RHYS DAVID

ALUMINIUM PRODUCTION in Britain was at its highest level for 18 months in April but the pattern of depressed trading which has been apparent in all sectors since the end of last year shows no signs of coming to an end.

The U.K. smelters produced 27,251 tonnes in April—a total exceeded only in December, 1973—according to the latest statistics published by the Aluminium Federation in Birmingham. Dispatches of primary aluminium to customers are down, however, by 33 per cent. in the first four months of 1975 compared with same period last year, largely as a result of a sizeable drop in imports.

Whereas in January-April, 1974, 85,421 tonnes were imported to meet the shortfall in U.K. production, this year the total has come to only 45,179 tonnes—a drop of 47 per cent. Total despatches, at 189,001 tonnes in the first four months of 1974, amounted to only 125,468 tonnes in the same period this year—the lowest total since 1971 for the period. Dispatches in April itself totalled 28,898 tonnes, against 47,597 tonnes in April last year.

A similar picture emerges from figures for secondary aluminium production—largely reclaimed metal—which in the first four months of the year totalled 59,388 tonnes, a drop of 18 per cent.

April dispatches of rolled products totalled 12,428 tonnes, the lowest total again since 1971 and a drop of 38 per cent. on the April, 1974, figure of 19,819 tonnes. In the first four months of 1975 dispatches are down 26 per cent. on last year—57,964 tonnes against 78,407 tonnes.

The fall in extrusions has been somewhat less severe, with April's total coming to 14,482 tonnes against 16,798 tonnes in April, 1974.

VAT boycott ends after 'breakthrough' talks

THE NATIONAL Federation of Self Employed called off a threatened VAT boycott, yesterday, following "a breakthrough" in relations with the Government.

The federation has instructed members to withhold payment of VAT after July 1 unless the Government was prepared to reconsider the "special case" of the self-employed and small businesses.

The decision to call off the boycott was taken after a meeting between a four-man federation team and Dr. Mark Hughes, Parliamentary Private Secretary to the Treasury.

The federation is now to submit detailed proposals to deal with the problems that collection of VAT creates for the self-employed. Dr. Hughes undertook to try and arrange a meeting between the federation and the Financial Secretary to the Treasury.

P.O. delay for data transmission

By Christopher Lorenz

THE POST OFFICE has told 40 of its most important data transmission customers that the new experimental packet switched service (EPSS) will not start fully until next May, nine months behind schedule.

The main reason for the delay apppears to be late delivery by Ferranti, which is to supply three exchanges using 13 Argus mini-computers and associated software. Publicity about the company's financial problems last autumn apparently made it difficult for a time to secure electrical components from outside suppliers.

The P.O. has said that future plans for the provision of a public switched digital data network will be influenced by the experience of the two-year EPSS experiment.

The availability of a network has been urged by many advanced data transmission users. Digital data from computers at present has to be converted into analogue signals for transmission down the telephone line.

The P.O.'s new schedule foresees tests starting in October, followed by a limited local service in Manchester and London in December. After a further interim extension of the service in February, full operations on the Glasgow-Manchester-London network should start in May.

Milk shortage threatened this winter

A WARNING that the U.K. is threatened with a serious shortage of milk and cream this winter, and possibly rationing over Christmas, was made yesterday by Mr. Jim Jackson, vice-chairman of the Milk Marketing Board.

He said that because low milk prices had destroyed their confidence, a record number of 8,000 farmers had gone out of milk production in the past year.

"At the present milk price and feeding costs, winter milk production no longer makes economic sense."

Calling for a substantial increase in the farmers' milk price to be announced before August and to operate from October when winter breeding starts, Mr. Jackson warned: "I believe the consumer should pay the cost of producing milk, which without subsidy would be 9½p a pint."

Biggest oil platform on way to Forties

THE OIL PLATFORM Graythorp 2, delayed by bad weather after its naming ceremony, was floated out from the Hartlepool construction yard of Laing Offshore early yesterday and was towed by tugs on the first lap of a 300-mile journey to the BP Forties field.

Graythorp 2, 32,000 tons and twice the height of Big Ben, is believed to be the largest steel structure in the world. It is expected to reach its destination, 150 miles North-East of Aberdeen, in two days if weather conditions are good.

The platform was to have been floated out on Saturday afternoon but gusty winds delayed its departure. Graythorp 2 took [illegible] months to build and was completed four weeks ahead of schedule.

At the naming ceremony there was a plea to the Government for more orders to keep the manufacturers going.

Sir Maurice Laing, chairman of John Laing Construction, said: "We have another platform to build immediately after this, but we urgently need a further order to keep us going beyond that."

He added: "The good news of Graythorp is simply that British workers and British management, ably led and working together, are still unbeatable."

Press Council critical of carnival case

THE NEWS of the World and Southampton City Council have been criticised in a Press Council adjudication.

The city council had complained that the newspaper published an article which was grossly inaccurate and misrepresented events which it was supposed to describe.

An action committee organised a "carnival of neglect" to draw attention to the fact that the city's Northam area was in need of urgent improvements.

The News of the World published a story headed "Shut our Windows of Shame" and "Demo demands action on vice girls."

The Press Council adjudication was: "In the opinion of the Press Council the subject matter of the article was of serious public interest, sensationalised in a way calculated to attract public attention, as it did. The opportunity to reply was made available to the city council but not taken.

"The Press Council upholds the complaint against the News of the World only to the extent that the headlines and initial paragraphs of the news story were not accurate as to the overt motivation and conduct of the procession."

IN BRIEF

The Association of British Chambers of Commerce has attacked television companies for "superficial and generally ignorant public treatment of business questions" in a report to the Annan Committee on the future of broadcasting.

Rockware Italy deal

Rockware International, launched in 1972 to export the Rockware group's skills in packaging, will help with furnace design and operation in a five-year agreement with the Italian company Bormioli, of Parma.

Jennie series for U.S.

Thames Television sold the drama series Jennie, Lady Randolph Churchill, to American television. It has been bought for coast-to-coast showing by the Public Broadcasting Service.

Costly learnings

The Open University's Planning Committee, meeting next month, is expected to make economy cuts that may reduce the total of 20,000 students due for admission in January. There are 48,000 Open University students.

Tap phones, says MP

Telephones must be tapped and letters opened in the fight against terrorists, says Mr. Philip Goodhart, Tory MP for Beckenham, in a phamplet, The Climate of Collapse, published yesterday.

Watney raises strengths but prices stay same

BY KENNETH GOODING, INDUSTRIAL CORRESPONDENT

FROM TO-DAY WATNEY, the brewing division of the Grand Metropolitan Group, is to increase the strength of four of its beers which account for 40 per cent. of its draught beer output.

The beers are special bitter, Truman special, Ben Truman export draught, and Norwich special, which is sold in East Anglia.

The prices will not go up, though the extra duty cost to Watney may be as much as £500,000 a year.

Watney said at the week-end: "We never disclose the gravity of our beers. You will have to wait for other people to do their tests."

The special bitter has been at the centre of a row between Watney and the Campaign for Real Ale. Watney discontinued one advertising campaign for it last November when the Advertising Standards Authority ruled it was misleading.

In February the company relaunched its special bitter campaign with a slogan approved by ASA but criticised by CAMRA, featured in a critical Sunday Times article, and the butt of a joke item on the Nationwide BBC television programme.

Watney decided to scrap the new campaign at a cost, CAMRA claims, of about £220,000.

It says that increasing its beer strengths has nothing to do with that episode.

'Too many rules' for food

BY OUR INDUSTRIAL CORRESPONDENT

THE FOOD and Drink Industrial Council has submitted a memorandum to U.K. Government Departments and EEC organisations on the effect of non-tariff barriers on the movement of manufactured food products.

The Council is taking advantage of the GATT-Tokyo Round of trade negotiations to raise again the question of non-tariff barriers.

The value of FDIC's members' exports to countries covered by the Tokyo Round (that is other than to the Common Market territories) was £180m. in 1973.

The FDIC said at the week-end that it was difficult to highlight the barriers which caused most problems because they varied according to product and territory. Broadly, licences, quotas and import embargoes were the barriers of most concern.

"However, the proliferation of food regulations varying from country to country means that they can no longer be considered to be of nuisance value only."

"They are a very considerable and growing barrier to trade. We have in mind regulations such as those concerning food additives, labelling and marking requirements, standards and composition, packaging, and veterinary and animal health matters.

"While it is recognised that Governments have the right and duty to protect consumers, these regulations are often unnecessarily complex or inconsistent.

"We feel that the Tokyo Round should be used as an opportunity for initiative in reversing the present trend of proliferating regulations. A set of rules should be established on which the regulations should be based.

"The draft Code of Conduct on non-tariff barriers (which is intended to apply mainly to industrial products) should be extended to the food and drink processing industries."

Pipe-plant plan scrapped

BY OUR NEWCASTLE CORRESPONDENT

Anchor-Wate has dropped plans to build a £2.5m. plant at South Shields to coat pipes for North Sea oilfields.

The firm is to give up the lease it has held for two years on a 35-acre site at Tyne Dock.

Anchor-Wate, a British subsidiary of an American group, said the project, which would have involved up to 500 jobs, had been shelved because of uncertainty over the future development of North Sea oil and shortage of investment [illegible]

Businessman's Diary

U.K. TRADE FAIRS AND EXHIBITIONS

Date	Title	Venue
Current	Grosvenor House Antiques Fair (cl. June 21)	Grosvenor House, W.1
To-day	Provincial Booksellers' Monthly Fair (cl. June 17)	Kenilworth Hotel, W.C.1
June 17—20	Royal Highland Show	Edinburgh
June 17—20	Microforum International Exhibition	West Centre Hotel, W.6
June 22—26	Contract Furnishing and Interior Design	Olympia
June 23—27	Intnl. Film Technology Exhibition and Conference	Royal Lancaster Hotel, W.2
June 23—27	Euro. Assn. of Radiology Tech. Exbn. and Cong.	Edinburgh
June 25—26	Royal Norfolk Agricultural Show	Norwich
June 30—July 3 .	Royal Agricultural Show	Kenilworth, Warwicks.
July 1—3	Electronics Exhibition	Leeds University
July 8—9	Business '75 Exhibition	Middlesbrough
July 8—10	Great Yorkshire Agricultural Show	Harrogate
July 8—11	Intnl. Audio-Visual Aids Exbn. and Conf.	Olympia
July 14—26	North-West '75 Home and Leisure Exbn.	Blackpool
July 18—26	Brighton Antiques Fair	Corn Exchange
July 20—21	Fish Catering Services Exhibition	Regent Centre Hotel, W.1

OVERSEAS TRADE FAIRS AND EXHIBITIONS

Current	Technical Goods Fair (cl. June 17)	Poznan
Current	International Fair (cl. June 22)	Lisbon
To-day	Laboratory Equip. and Medical Aids (cl. June 22)	Zagreb
June 17—20	International Knitwear Exhibition	Milan
June 17—21	Brit. Export Centre: Camping and Leisure Exbn.	Tokyo
June 17—21	International Education Exhibition	Melbourne
June 17—26	European Machine Tool Exhibition	Paris
June 18—23	International Art Fair	Basle
June 19—22	International Pharmacists' Exhibition	Basle
June 20—24	Music Industry Trade Show	Chicago
June 20—25	Building Materials and Pre-Fabrication Fair	Tehran
June 23—27	International Packaging Exhibition	Brno
June 24—27	Opto-Electronic Systems Exhibition	Munich
June 24—28	Irish Cleaning and Maintenance Exhibition	Dublin
June 24—July 6 .	Housing and Public Works Exhibition	Naples
July 1—8	International Saba Saba Trade Fair	Dar es Salaam
July 3	Zambia Trade Fair	Ndola
July 4—5	Glazing and Window Frame Exhibition	Stuttgart
July 4—13	Food and Agricultural Machinery Exhibition	Sao Paulo
July 8—17	Intnl. Fire Engineering Exhibition	Moscow
July 14—18	Medical Exhibition	Johannesburg
July 14—18	National Housewares Exhibition	Chicago

BUSINESS AND MANAGEMENT CONFERENCES

Current	Lond. Grad. Bus. Sch. Corporate Fin. (cl. June 23)	Sussex Place, N.W.1.
Current	Ashridge Man. Coll: Management Dev. (cl. June 27)	Berkhamsted, Herts.
To-day	PE Cons.: Leadership in Management (cl. June 20)	Egham, Surrey
June 17	Euro. Study Confs.: Employment Protection Bill	Manchester
June 17	International Insider: Eurocurrency Lending	London Press Centre
June 18—20	Direct Mail Assn. Annual Conference	Amsterdam
June 19	Henley Centre: Middle East Economic Prospects	Carlton Tower, S.W.1
June 19—20	Financial Times, Straits Times, British Airways, Cathay Pacific Airways and Fairplay International Shipping Weekly: South East Asia Shipping	Singapore
June 19—20	Fulmer Res. Inst.&RPD Planning and Design	Slough, Bucks.
June 23—28	Bradford Univ.: Marketing and Logistics Planning	Heaton Mount, Bradford
June 23—July 11	Urwick Man.: Computer Systems Analysis No. 39	Slough, Bucks.
June 24	Guardian Bus. Serv: Understanding Com. Contracts	Hyde Park Hotel, S.W.1
June 24—26	FT Man. Serv.: Int. Auditing and Man. Systems	London
June 25	IPC Bus. & Ind. Trng.: Meat Alternative	Cafe Royal, W.1
June 25	Inst. of Marketing: Management by Commitment	London Tara Hotel, W.8
June 25	N.I. Dept. Com.: Steel Fabrication for Offshore Oil	Dunmurry, N. Ireland
June 25	Chatham House: The International Credit War	RIIA, 10, St. James's Sq., SW1
June 25—26	Marylebone Press: Recycling and Waste Exchange	Palace Hotel, Buxton
June 26	Sino-British Trade Council: Chinese Oil	Excelsior Hotel, Glasgow
June 30—July 1 .	Computer Power: Advanced Filetab	Cannock, Staffs.
June 30—July 1 .	Strategic Man.: Creativity and Innovation	London Bus. School, N.W.1
June 30—July 2 .	South Wales Inst. Eng.: Materials Conservation	Cardiff
June 30—July 2 .	Dunchurch College: Know about Offshore Oil	Dunchurch, near Rugby
June 30—July 3 .	NE Scot. DA: Aberdeen—Europe's Offshore Capital	Aberdeen
July 2	Assn. of Cert. Accnts.: Current Taxation	Imperial Hotel, W.C.1
July 3	Inbucon/A.I.C.: Job Design at Work	Barrington House, E.C.2
July 3	South African Investment Seminar	Intercontinental Hotel
July 8	Staniland Hall: Outlook for Leisure to 1980	London Hilton, W.1
July 8	BACIE: Television in Training	Goldsmiths' College, S.E.14
July 8	Inbucon/A.I.C.: Relocation or Dislocation	Financial Times Cinema
July 9	Inst. Directors: Cap. Trans. Tax and Small Bus.	Royal Garden Hotel, W.8
July 10	New Law Journal: Revenue Law	Cafe Royal, W.1
July 11—13	IEE: History of Electrical Engineering	Manchester University
July 14	CBMPE: Electronics in Offshore Operations	Cafe Royal, W.1
July 14—18	Louis A. Allen & Ass.: Professional Management	Grand Hotel, Eastbourne
July 15	North Paul & Ass.: Transactional Analysis	The Gloucester, S.W.7

APPOINTMENTS

Laing forms company for overseas work

JOHN LAING INTERNATIONAL has been formed to co-ordinate the overseas activities of John Laing and Son. Group overseas affairs will thus be separated from the engineering division of John Laing Construction in the U.K. and Europe. The Board of the new company is: chairman, Mr. G. F. Parsons; deputy chairman, Mr. J. W. Charnley; managing director, Mr. J. M. Watt; assistant managing director, Mr. J. F. Meddins. Directors are Sir Kirby Laing, Sir Maurice Laing, Mr. D. W. Turner, Mr. B. K. Clancy, Mr. L. J. Holliday, Mr. K. T. W. Beavon, Mr. W. D. Hewetson and Mr. C. J. Penniket. The secretary is Mr. E. R. Beecher.

★

Mr. E. Willis-Jones has been appointed chairman of the JOHN TAYLOR DUNFORD GROUP, recently purchased by Thorn Electrical Industries. Mr. R. H. Dunford is deputy chairman and Mr. N. Wolf chief executive. Mr. I. D. Walker, chief financial executive of Thorn Measurement Control and Automation Division, and Mr. N. R. Spencer, sales director of Thomas Glover and Co., join the Board as directors. The Dunford companies will be an integral part of Thorn Measurement Control and Automation Division, of which Mr. Willis-Jones is chairman and managing director.

★

Mr. I. R. G. Manning has been appointed managing director of MOLINS subsidiary, Masson Scott Thrissell Engineering. He succeeds Mr. J. F. Holbrook, who becomes secretary and special director of Molins. Mr. J. A. Florant, previously sales and marketing director, becomes deputy managing director. Mr. S. A. Dreyfuss has been appointed director of sales of Molins tobacco machinery division, succeeding Mr. D. E. H. North, who becomes president of the Richmond division of the group's American subsidiary, Molins Machine Company Incorporated.

★

The produce trading activities of Gill and Duffus and Landauer and Co. (Produce) have been merged under the name of GILL AND DUFFUS LANDAUER. Mr. R. J. Thorne has been appointed chairman and managing director. Mr. W. G. Brown, Mr. H. B. Fossey, Mr. C. J. Rockett, Mr. R. A. Seaborn and Mr. B. H. Wilden have been appointed directors.

★

Mr. Alan Barnes has been appointed secretary of BROWN-LINE and will remain financial controller.

★

Major M. C. Keer has resigned from the Board of WOLSELEY-HUGHES on relinquishing his executive responsibilities in the Group.

★

Mr. Tom Harrison, managing director of Tozer Kemsley and Millbourn, has been elected chairman of the BRITISH IMPORTERS CONFEDERATION.

★

Lord Zuckerman, former scientific adviser to the British Government, has been elected this year's honorary fellow of the PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

★

Mr. Keith Dexter has been appointed director general of the AGRICULTURAL DEVELOPMENT AND ADVISORY SERVICE of the Ministry of Agriculture in succession to Mr. Erlam S. Dobb, who is to retire from public service on September 1. Mr. Dexter, at present Under Secretary in charge of the Ministry's meat and fatstock group of divisions, will be promoted to Deputy Secretary on taking up his new appointment.

The Financial Times, published daily except Sundays and holidays. U.S. subscriptions $190.94 (air freight) $381.88 (air mail) per annum. Second class postage paid at New York, N.Y.

Electricity unions reject TUC participation plans

BY ROY ROGERS, LABOUR CORRESPONDENT

TUC PROPOSALS for worker participation in the electricity supply industry, submitted to the Plowden Committee of Inquiry are likely to be disowned by several of the industry's main unions which have already presented contradictory evidence.

The TUC evidence, published to-day, calls for trade union involvement in decision-making at all levels, including 50 per cent. representation on a supervisory Board designed to control a proposed England and Wales Electricity Corporation.

This goes against the views of several of the industry's manual unions as expressed in their submission to the committee where they said "several major unions would not support this direct involvement of trade unions in the management function."

This issue was put more clearly yesterday by Mr. John Lyons, general secretary of the Electrical Power Engineers Association, who said he was "concerned" at the TUC proposals for worker participation.

"Not only is this an ill thought out proposal, but the TUC has not even asked the unions in the industry if they want such an arrangement.

"As far as we are concerned only one union in the industry—the Transport and General Workers Union—was positively in favour of such a proposal," he added.

The disapproval of the TUC evidence is no doubt a factor behind the low-powered delegation which will give additional oral evidence to the committee later thas week. Only one general secretary is in the team, Mr. Geoffrey Drain of the National and Local Government Officers' Asociation, two of the delegation are national union officers from the gas industry, while the EPEA will not be represented at all.

Mr. Frank Chapple, general secretary of the Electoral and Plumbing Trades Union and chairman of the TUC fuel and power committee, will not be in the party as he is also a member of the Plowden Committee. But both he, and his union concerned, have come out recently against the principle of worker participation at Board level.

Less contentious items in the TUC evidence include ending the separate functions of the Electricity Council and Central Electricity Generating Board.

Their recommendation of a new England and Wales Electricity Corporation means the electricity supply industry would be controlled in the same way as the gas, coal and steel industries. It would ensure a unified structure of decision making in the industry.

Although the new corporation should have a main centralised planning function for the whole industry, as much administrative de-centralisation as possible should take place through the area boards.

The TUC, however, says that it "sees no disadvantage and every advantage from transferring the price setting powers of the area boards back to the central authority."

Although the TUC proposes a main board for the proposed EWEC—half of which should be composed of union representatives—it considers that this main board would not be the operative body for wage negotiations. These, it suggests, should be dealt with by a subordinate executive.

The TUC also thinks the present system of consumer consultation in the industry is inadequate. It suggests that a National Electricity Consumers Council should be set up to give the interests of consumers an effective hearing.

NUM censure threat for pro-Market MPs.

BY OUR LABOUR STAFF

FIVE YORKSHIRE MPs sponsored by the *National Union of* Mineworkers now face up to three censure motions from union branches at next week's Yorkshire area NUM council meeting.

The five, headed by Mr. Roy Mason, Minister of Defence and *MP for Barnsley, have* angered some left-wing miners by their open support for British membership of the EEC. The Yorkshire NUM Council was strongly opposed to continued membership.

Mr. Arthur Scargill, the union's area president and a leading campaigner for a No vote in the referendum now has to decide whether to allow the highly critical resolutions to be debated.

In the past he has usually persuaded delegates to avoid a direct confrontation with their sponsored MPs. But this time he is expected to allow at least one motion to be fully debated.

He is likely to choose the one *from the Barrow Colliery branch,* in the heart of Mr. Mason's constituency. This demands the withdrawal of sponsorship from Mr. Mason and the other four pro-Market MPs — Mr. Alec Woodall (Hemsworth), Mr. Alf Roberts (Normanton), Mr. Edwin Wainwright (Dearne Valley) and Mr. Joe Harper (Pontefract).

The area's other sponsored MP, Mr. Dick Kelley (Don Valley), was a firm supporter of the union's campaign against Common Market membership.

Mr. Mason on several accasions has clashed with the union over his pro-EEC views, especially when he openly campaigned to try to stop the NUM adopting its initial anti-Market stance in 1971-72.

If a censure motion is carried, the main threat is a potential withdrawal of financial support for the offending members, and even the Labour Party at the next election.

'London low pay' report

Some 20 per cent. of manual workers in the City of Westminster earn less than £30 a week, according to a report on low pay published to-day.

"Average earnings for men in Westminster stood at £60.40 a week last year. At the same time one in five manual men earned less than £30 a week," states the report, from the Low Pay Unit.

Across the Thames in Lambeth 15 per cent. of men earned less than £24 a week.

A second report from the Unit, discloses that nearly half Britain's low-paid workers are employed in industry for which the Government is directly or indirectly responsible, either as employer or through the wages council sector.

'Companies frustrated IR Act's closed shop provisions'

BY JOHN ELLIOTT, LABOUR EDITOR

A GENERAL defence of closed shops in industry, plus an allegation that companies tried to "frustrate" the Industrial Rela*tions Act's attempts to outlaw* such arrangements are launched this morning in a new book written by four labour academics.

Published when closed shops, especially in the newspaper industry, are at the centre of the controversy over legislation now passing through Parliament, the book reports that 40 per cent. of trade unionists belong to closed shops.

It argues that many companies like closed shops, and that, in general, individual workers do not object to them. It also suggests that lessons to be learned about the ineffectiveness of labour law which does not command wide support could be relevant to laws on race relations and equal rights for women.

These arguments form part of a book called "Industrial Relations and the Limits of the Law," written at Warwick University which assesses the limited effects of the Conservative Government's 1971 Act.

The authors claim that employers in general did not like the idea of the threat of law, involving third parties having a say in their affairs, being used in industrial relations.

"Managers were specially reluctant to see bargaining arrangements disturbed by the new individual rights, and combined effectively with unions to draw the sting from the law's attack on closed shops. Nor were they keen to use the law to enforce procedures or prevent costly disputes," say the authors.

"Managers were aware that *legally enforceable agreements,* attempts to end the closed shop and restrictions on the right to take industrial action were strongly opposed by unions and their members. They were reluctant, therefore, either to enforce the legal rights of others or to use legal sanctions that were designed to enhance their own authority."

The book suggests that a combination of employers doing their best to get round the IR Act's *outlawing provisions plus some* apparent Government indifference, taken together with the *courts' inability* to enforce the law fully, meant that generally closed shops stayed in being in some informal but effective sense.

During the three years prior to the Act coming into force in 1971, closed shops were being adopted in new areas, especially for clerical and junior management groups.

In a survey conducted by the authors, 16 out of 39 companies acknowledging the existence of closed shops plus three nationalised industries said they had come into force between 1968 and 1971.

"There is no evidence, either from industrial experience or the use of the law, that in general individuals regard compulsory trade unionism as a serious infringement of individual liberty," says the book. On the other hand, the advantage of closed shops to management is that they can avoid inter-union competition for membership *while also giving unions the* power to enforce agreements on their members. "The closed shop may be seen as an expression of the collective nature of the employment relationship," suggests the book.

The main reason that the IR *Act failed to stop closed shops* operating was that "employers defended it almost as tenaciously *as did workers." By using* "persuasion, the recruitment interview, induction, and a variety of techniques, managers set out to frustrate the intention of the law," claim the authors.

"Their success must raise doubts about the ability of the law to protect individual rights in the field of employment unless these rights are seen to command wide support or serve the interests of the parties to collective bargaining. Our evidence has clear implications for the employment rights contained in race relations legislation and laws to secure equal rights for women."

Warwick Studies in Industrial Relations. Industrial Relations and the Limits of the Law—the industrial effects of the IR Act 1971. By Brian Weekes, Michael Mellish, Linda Dickens, John Lloyd. Basil Blackwell Oxford. £7.50 hardback. £3.95 paperback.

WEEK-END POLITICAL SPEECHES

'Support contract' call by Ministers

BY JOHN BOURNE, LOBBY EDITOR

LABOUR LEADERS concentrated their week-end comments *on the urgency of tightening the* guidelines of the social contract.

Mr. Denis Healey, Chancellor of the Exchequer, warned the unions of the danger of the Government destroying its credibility if it allowed a settlement for the railwaymen far above *the existing* guidelines or the arbitration figure of 27.5 per cent.

A *national rail strike would* be disastrous, but it would be even more disastrous if the Government was seen to destroy its credibility.

Speaking on BBC Radio Leeds, Mr. Healey stressed the importance of getting a "firm guarantee" from the unions that wage demands in the next round of negotiations would be in keep*ing with a cut by half in the rate* of inflation.

He said he was most encouraged by the *TUC's discussions* on a plan to achieve this.

In Cardiff, Mr. Michael Foot, the Employment Secretary, said the problems of inflation would not be solved by "battles" between the Government and trade unions. The key to success was to "build a link" between the industrial movement and the political movement that *could* never be broken.

"You cannot solve the problems of inflation by fighting a *battle between* the Government and the trade unions. The previous Tory Government tried that and it *ended* in the fiasco of the three-day week and the accompanying setback to British industry," he told the South Wales miners' annual gala.

"The only way in which you can solve inflation is with patience, courage and determination, seeking to ensure that you do retain full co-operation between the Government and the trade union movement of this country." It could not be done by statutory impositions nor by the Government "laying *down the law.*"

He believed inflation could be overcome, despite the narrow *majority in the House of* Commons, and that most other countries had failed to do so *without mass unemployment.*

Mr. Foot said he did not dispute that trade unionists owed an obligation to their membership, but they also owed an obligation to the Labour Government and the country as a whole.

The Home Secretary, Mr. Roy Jenkins, told the Northumberland Miners' picnic that, unless inflation is brought under control, money will become meaningless and the "whole social fabric of decent living standards and *protection for the weak* will be at risk."

"We will see one after an*other of our valued institutions,* public and private, driven into the ground, and find it increasingly difficult to afford a railway system, the postal service, and schemes, valued private and public schemes, such as those for old miners' houses."

An injection of national self-confidence was needed—and could be achieved.

At the Scottish Miners' Gala, in Edinburgh, Mr. Ron Hayward, general secretary of the Labour Party, said the "inflationary surge" would limit Labour's plans to carry out manifesto promises and called on the unions to unite with the Government to fight inflation.

"*The miners have always held* a high position in the loyalty and comradeship of the Labour movement. *Twice in recent years* the whole Labour movement has united in your defence against those who sought to divide and rule," he declared. "Now it is time to remember our obligations and responsibilities to each other and to the wider unity of the movement of which we are part."

Heath still running for leadership

BY JOHN BOURNE, LOBBY EDITOR

MRS. MARGARET THATCHER *and other senior* Tories increased their attacks on the Government's *economic* policies during *the week-end after* the lull of the referendum campaign, but Mr. Edward Heath, her predecessor *as party* leader, also indicated in an article in the Sunday Express that he still re*gards himself as a possible* leader of the party.

Besides discreetly reminding people of his triumphs at referendum campaign meetings, he recalled his question as Prime Minister in the February, 1974, election—do you want to be governed by the Government or the trade unions?

He commented: "Inevitably there are many people who believe the present economic slide could have been avoided if only people had come out in large numbers that February to back the measures that needed to be taken."

After Mrs. Thatcher had left the *Welsh Conservative* conference at Aberystwyth on Saturday, the conference discussed a motion criticising the failure of the Conservative leadership of providing new and aggressive policies and pointing out that there had been little sign of these policies on which Mrs. Thatcher had been elected.

Mr. Tim Mason, for the Federation of Conservative Students, said that when Mrs. Thatcher was elected there was a vague idea that she represented a new sort of positive and aggressive Conservatism and that she was *going* to change the direction of the party and the country.

"That idea is still vague," he said. "By *the middle of* April no leadership had come from Mrs. Thatcher."

While Mrs. Thatcher was at the conference, representatives were issued with pamphlets signed "Students for Edward Heath." They said: "Edward Heath—man of principle" and contended that the extent of the mistake in changing him for Mrs. Thatcher was now apparent.

"In his place we have a politician whose election was shrouded in confusion, whose grasp of most fields of policy is extremely limited and whose ability to appeal to the working class lost vote is minimal.

"Above all, when the test of her *leadership came in the* referendum, she abandoned the work and the burden of the *leadership of the party to the* person whose qualities she had so recently derided."

Questioned at the conference, Mrs. Thatcher dismissed the idea of a coalition government.

She also appeared to have little time for a period of statutory wage controls, although her foreign affairs spokesman, Mr. Reginald Maudling, said in Chislehurst, the same night: "Whether it be a wage freeze, whether it be a statutory wage policy, *whichever form it takes,* the Government must produce a policy as soon as possible. And if it *is* in the national interest, the Opposition must support it.

Obsessed

In her speech Mrs. Thatcher said "the Conservative Party stands ready and willing to take up the fight against inflation in the name of the whole nation."

Britain was drifting towards catastrophe. And now, while other countries were bringing their inflation under control our patience was being exhausted.

Sir Keith Joseph, Opposition spokesman for policy and re*search said at Oxford on* Saturday that Britain's "borrowing requirement" is likely to be £13bn. "*The so-called 'borrowing requirement,'* largely an euphemism for budget deficit, has been estimated by Mr. Healey at £9bn.—an unprecedented sum, an unsupportable burden.

"But even this understates the likely figure by more than half again."

OVERSEAS NEWS

Greece may try junta leaders next month

By Our Own Correspondent

ATHENS, June 15.

THE TRIAL of the leaders of the military junta which abolished democratic rule in Greece for seven years will be held in Athens before the summer is out, Minister of Justice Constantine Stafanakis said.

The trial will satisfy a public outcry for the punishment of those who ruled the country by edict. An authoritative source said that the trial, described here as the "Nuremberg" of Greece, will be held late in July or early in August, provided that by the end of this month the Supreme Court rejects the appeals by the defendants against the legality of their prosecution.

Twenty-one leading members of the junta have been remanded on high treason charges which entail a possible death penalty. They include Mr. George Papadopoulos, the former artillery colonel who masterminded the April, 1967, army coup and installed himself President in June, 1973, and retired General George Zoitakis who served as Regent.

They also include retired Brigadier General Demetrios Ioannides, the chief of the military police who overthrew Papadopoulos in November, 1973, only to relinquish power to the politicians in the face of the Cyprus crisis in July, 1974.

The defendants have claimed in their appeals that the takeover was a revolution which created its own legal status.

Israelis bomb Lebanon after guerilla attack

BY OUR OWN CORRESPONDENT

TEL AVIV, June 15.

ISRAELI warplanes struck inside Lebanon for the first time in three weeks to-day following an Arab terrorist attack on an Israeli farming village nearby in which two civilians died and the four Arabs were killed by troops.

The attack, by the Iraqi-backed Arab Liberation Front according to security sources, is believed to have been timed to coincide with, and upset, the current efforts to reach another settlement between Israel and Egypt.

The air strike on the village of Kfar Shouba, long a staging point for cross-border guerilla operations, could be seen and heard clearly from Kfar Yuval, the Israeli co-operative settlement where the guerillas struck shortly before dawn.

The Arabs were spotted by local civil guards, who drove the guerillas into a farmhouse. The head of the family, held hostage inside the house, led the army commando storming operation two hours later and died from grenade wounds together with his brother-in-law who had been held inside. Six other civilians were wounded in the shoot-out.

Before the army troops charged in, the Arabs had demanded the release of 12 people imprisoned in Israeli jails in exchange for the hostages' freedom. Among the names was that of Msgr. Hilarion Capucci, the Greek Orthodox archbishop of Jerusalem who is serving a 12-year prison term for smuggling arms from Lebanon.

This was the first major guerilla incursion into Israel since last March, when a party of Al Fatah commandos landed on the Tel Avis shorefront and waged a gunbattle with troops from inside a hotel.

The Tel Aviv raid came on the eve of Dr. Henry Kissinger's later abortive Middle East mission to forge an interim peace settlement between Israel and Egypt. The growing expectation of another Kissinger round following President Ford's meetings with the Israeli Prime Minister, Mr. Yitzhak Rabin and Egypt's Anwar Sadat, is regarded here as the probable provocation for to-day's operation.

Israeli corespondents reported from Washington to-day that Mr. Rabin made clear in his talks with Mr. Ford that Egypt could get back all of the two strategic Sinai mountain passes only in return for a long-term pledge of non-belligerency. Otherwise, the Prime Minister was said to have insisted on Israeli retention of its early-warning reconnaissance installations atop the eastern approaches of the passes, although Egypt would be allowed to construct its own systems there as well.

Ihsan Hijazi reports from Beirut: A military spokesman said here that, after the Israeli bombing, one woman was killed and three other persons, two of them women, were wounded. Commando sources here claimed that guerillas shot down one of the Israeli jets, a U.S.-made Phantom.

One of the commando "rejection groups," the Arab Liberation Front (ALF), has claimed responsibility for this morning's attack on Yuval in which four guerillas were killed in a clash with Israeli forces. The ALF, in its statement, admitted the death of the commandos.

The ALF is supported by Iraq and is linked to the pro-Baghdad branch of the Baath Party. With the Marxist Popular Front for the Liberation of Palestine and the "General Command" it forms the "rejection front" opposed to a political settlement in the Middle East.

The rejection front had been expected to escalate action against Israel after a strong information campaign last week over the possibility the U.S. may renew its step-by-step diplomacy to bring about an interim settlement between Egypt and Israel in Sinai.

Leaders of the PFLP and the General Command have just completed talks with Libyan leaders in Tripoli on what observers here described as ways and means to scuttle the projected new American initiative.

'Turkey threatens to close U.S. bases'

By Metin Munir

ANKARA, June 15.

TURKEY has decided to implement counter measures against the U.S. arms embargo including the dismantling of American bases here and the review of Turkish-American defence agreements, political sources said here to-day.

These measures will be discussed at a special session of the national security council, Turkey's top advisory body, to-morrow and at a Cabinet meeting later the same day, the sources said. They expected some of the nearly 30 American bases in Turkey to be ordered closed within four months.

The U.S. arms embargo was imposed by Congress last February despite strenuous opposition by the Ford Administration to put pressure on Turkey over Cyprus. Turkey countered by announcing that it would review its defence ties both with the U.S. and NATO but until now refrained from taking any action. There was hope, which is apparently now abandoned, that the U.S. Administration would convince Congress to restore arms sales and grants to Turkey.

"Turkey is in no need of those who have no need for it," Prime Minister Suleyman Demirel told a Press conference here to-day. He was summing up the achievements of his right-wing coalition's two months in power.

defence with those of its

"Turkey will safeguard its friends who are determined not to abandon it."

He charged the U.S. with the unilateral violation of its agreement both with Turkey and NATO.

"The United States is giving or selling arms to 90 states but we, who have been a loyal and self-sacrificing ally for 30 years, cannot buy American arms even with our money," he said. "This is hardly a friendly attitude."

He expected NATO to fill the gap made by the embargo so that Turkey could maintain its obligations to the alliance.

Turkish-American relations, which sustained a severe setback with the embargo, will certainly deteriorate further when Turkey launches its counter measures but it is not known how extensive these measures will be. It is likely that those of the U.S. bases which make the least contribution to Turkey's defence will be dismantled first.

American bases here include a large air base in South Eastern Turkey and many sophisticated radar and monitoring installations on the Black Sea coast and in the east close to the Soviet border.

Security for Italian polls

ROME, June 15.

GUARDED by 120,000 armed police and troops, Italians to-day voted in regional elections likely to pull the country further Left.

The massive security was ordered to prevent repetition of campaign violence in which six people died and 200 were injured in clashes and bomb attacks in the past few weeks.

Railway stations, where 100 special trains brought home tens of thousands of Italian workers from surrounding countries to vote, were also under tight guard.

About 40m. are expected to vote in the two-day elections for regional governments in 15 of Italy's 20 semi-autonomous regions. Governing bodies of 86 provinces and 6,345 municipalities are also being chosen.

Reuter

Iran and Iraq sign treaty

By Robert Graham

TEHRAN, June 15.

AFTER THREE months of detailed negotiations Iran and Iraq have signed a "reconciliation" treaty settling all outstanding differences. The agreement, signed by the Foreign Ministers of Iran and Iraq in Baghdad over the week-end, now has to be ratified by the two Governments.

The treaty follows intensive work by committees and a series of ministerial meetings in the wake of the Algiers summit in March. At the Algiers oil summit, through the good offices of the Algerians the Shah met the Iraqi leader, Saddam Hussein; and the two leaders decided to undertake a major initiative to settle differences.

Thus, within a sort time, Iran and Iraq have swung round from a situation of confrontation over the Kurdish issue to one of friendship. This new relationship was symbolised by the announcement over the week-end that the Shah had accepted an invitation to visit Baghdad.

Although for some weeks now the signing of such a treaty was a foregone conclusion, it will nevertheless have one important and immediate consequence.

Stabilising relations, even though the two have totally different political regimes, will bring a new equilibrium to the whole Gulf. More particularly, it is expected that this will add new momentum towards the creation of a Gulf security pact.

FINN CABINET

By Lance Keyworth

HELSINKI, June 15

President Urho Kekkonen has appointed a caretaker cabinet composed mainly of civil servants until a new Parliamentary government can be formed after the general election on September 21-22. This was the expected outcome after Premier Kalevi Sorsa's four-party, Left-Centre coalition Cabinet resigned just before midnight on June 12.

The new Prime Minister is Mr. Keijo Liinamaa, a senior civil servant in the Ministry of Labour.

Rabin says there is hope for a new deal in Sinai

NEW YORK, June 15.

U.S. SECRETARY of State Henry Kissinger and Israeli Premier Yitzhak Rabin held a final meeting here to-day and both made it clear later that there was no prospect of an immediate resumption of Dr. Kissinger's Middle East shuttle diplomacy.

Dr. Kissinger told reporters: "We have now fully clarified all the positions and the nuances of all the positions beyond any possibility of misunderstanding."

The meeting was arranged at the end of Mr. Rabin's talks with Dr. Kissinger and President Ford in Washington which ended amid guarded optimism that a new interim agreement could be worked out under which Israel will pull back its troops in the Sinai Desert in an agreement with Egypt.

But Mr. Rabin, in a TV interview immediately after to-day's talks at his hotel suite, said that both Israel and Egypt would have to shift from the positions they held last March if there were to be any chance of a new interim agreement.

The Prime Minister, who is due to hold another round of talks with Dr. Kissinger in New York to-day, defended Israel against charges of inflexibility for having turned down Egypt's terms during Dr. Kissinger's latest round of shuttle diplomacy.

Mr. Rabin said none of the dire predictions made at the time of Dr Kissinger's last abortive round of negotiations had proved correct. The threat of war was even less now than it had been three months ago, the Suez Canal had been reopened—even in the absence of a further Israeli withdrawal—and the mandates of the UN peacekeeping forces in the Sinai and on the Golan Heights had been renewed.

In an interview released to-day the U.S. News and World report magazine quoted him as saying Egypt had to negotiate on three basic issues if a new agreement was to be reached. These were:

Duration: "We want to know what is the minimal period that a new agreement will stand."

Non-belligerency: "If the state of war is unchanged and Egypt claims all the rights of a belligerent power, we cannot give up our defence on the Mitla and Giddi passes in the Sinai."

Steps towards peace: "There must be some symbolic acts (by Egypt) to show that we are at the beginning of a movement towards peace."

Reporting from Washington the Israeli newspaper Haartez said Mr. Rabin had agreed in his talks to withdrawals in the area of the vital Mitla and Giddi passes. It said Israel was prepared to settle for a number of positions and advance-warning installations along the eastern exits of the passes into Sinai. The newspaper Davar reported, however, that Mr. Rabin told Dr. Kissinger Israel was prepared to withdraw at least half-way into the passes but not to give them up altogether.

Reuter

HUSSEIN PLANS MOSCOW TRIP

AMMAN, June 15.

KING Hussein of Jordan will visit the Soviet Union and Romania next week for talks with government leaders, foreign ministry sources said to-day.

In Damascus, Palestine Liberation Organisation (PLO) chairman Yasser Arafat held talks with President Hafez Assad.

Assad gave Arafat details of his recent talks with King Hussein. Assad and Hussein announced the formation of a supreme joint command to formulate plans on military and political co-operation.

Assad explained how he hoped the Palestinians, who are negotiating a similar union with Syria, can be accommodated in the Syrian-Jordanian alliance, sources said.

UPI

COMPANY NOTICES

OVERSEAS NEWS

U.S. bid for new nuclear controls

BY PAUL LEWIS, U.S. EDITOR WASHINGTON, June 15.

THE U.S. is now attempting to *negotiate new safeguards* on the sale of civilian nuclear plants with Britain and other nuclear exporting countries, in order to *prevent third nations from building* atomic weapons of their own.

In particular, the U.S. wants *to* ban or tightly control the sale of uranium enrichment and fuel reprocessing plants, which can provide the purchasing country with a source of fissile material suitable for use in nuclear weapons.

As part of this plan, it has suggested the construction of a series of regional plants around the world for the reprocessing of fuel from civilian reactors. These would be under *international* control and would keep a tight check on the plutonium and other fissile material produced in the operation. However, there is some doubt as to whether this scheme would be economically viable in the foreseeable future. An alternative approach which seems to be *preferred* by the British *is for* countries exporting nuclear reactors to undertake to do the fuel reprocessing themselves.

American concern about the spread of nuclear technology particularly in the developing world, has greatly increased since the Indian explosion last year. But *it has been given new* impetus by the West German Government's decision to sell Brazil not only nuclear reactors, but also the enrichment and fuel processing plants as well.

This is the first time that the plant and technology for the complete nuclear fuel cycle has got into the possession of a third world country and although the Germans claim they will have adequate control over the use made of it, the U.S. Administration is very angry about the sale.

The South Africans already have a small enrichment plant of their own and according to Senator Abraham Ribicoff of Connecticut, an unnamed French company is negotiating to sell similar equipment to the Argentine, South Korea, Taiwan and Pakistan.

Besides the U.K., the U.S. is also discussing the new *safeguards* with *France*, West Germany, Canada and some other countries capable of exporting nuclear technology. The inclusion of France in the *negotiation* is regarded as particularly significant, since it has never signed the nuclear Non-Proliferation Treaty and has constantly taken an independent line on arms control questions.

In the first instance, the U.S. seems to be aiming for a general agreement between the major nuclear exporting nations that would be worked out in private between them. But in time this could be incorporated into a *formal treaty and included in* the existing regulations on the sale and handling of nuclear material, administered by the International Atomic Energy Agency in Vienna.

Kennedys 'may have link' with CIA plots

WASHINGTON, June 15.

VICE-PRESIDENT Nelson Rockefeller suggested to-day that President Kennedy and his brother Robert might have been involved in assassination plots by the Central Intelligence Agency (CIA) against foreign leaders, but he said he had no conclusive evidence of this.

Mr. Rockefeller, who headed a high-level commission that made a five-month investigation of CIA activities, said in a television *interview*: "I *think* it's fair to say that no major undertakings by the CIA were done without either knowledge and/or approval of the White House."

He said that the published sections of his commission's report did not deal with alleged assassination plots because the commission investigators could not get enough information to justify *conclusions and recommendations*. "Many of the people have died who were allegedly involved and others were assassinated in this country," he said.

Pressed to elaborate, he said: "We have no conclusive information but the President of the United States and the Attorney-General of the United States were both assassinated."

Mr. Rockefeller was obviously referring to how the deaths of *the Kennedy brothers made it* more difficult to uncover evidence, although he did not mention them by name.

Numerous press reports have told of CIA involvement in plots against Cuban leader Fidel Castro, former Dominican Republic leader Rafael Trujillo and others.

Reuter

Don Juan rejects Franco's succession

MADRID, June 15.

THE PUBLIC rejection by Don Juan de Bourbon, head of the Spanish royal house, of the *order of succession* imposed by General Franco, caused surprise here to-day.

Don Juan put himself forward *as the monarchist* alternative of Spanish opposition groups to his son Prince Juan Carlos, who has been designated by General Franco as his heir and future king and who is generally considered more liberal than his son.

The challenge from Don Juan came at a dinner given in his honour by a group of Spanish dissidents in Lisbon last night. Initial reaction among moderate *opposition* politicians here was that Don Juan's position would only make Spain's transition to democracy more difficult. "A dynastic squabble is the last thing we want," one said.

Their feeling was that undoing the order of succession, *already accepted by the Spanish army*, would only delay the advent of democracy, which the prince is expected to promote once he is in power.

Don Juan, known as the Count of Barcelona, met here with 70 Spanish Social Democrats, Christian Democrats and Monarchists to discuss the situation across the border, in a move that is bound to increase official resentment in *Madrid of the tolerance shown* to Spanish opposition activities by the new Portuguese regime.

Spain recently presented two *formal protests to the Portuguese* Foreign Ministry over the publicity given to anti-Franco news in the left-wing Press here and Madrid's recent promise of non-intereference in Portuguese internal affairs was generally considered to have been made in exchange for a similar undertaking by Portugal.

Although Don Juan effectively set aside his son's immediate claim to the throne, he carefully avoided mentioning the prince by name. "For personal and entirely human *reasons, I do not think it is* necessary to be more explicit," he said.

Don Juan said that General Franco's plan of succession did not provide the democratic change for which the Spanish people longed. "I am not the head of any conspiracy. I am no one's rival. I do not want my person to become the subject of discord amongst Spaniards. I do not seek anything," he said.

Reuter

Twenty dead in Rhodesia fighting

SALISBURY, June 15.

THE KILLING of 20 Africans in a *clash between* nationalist guerrillas and Rhodesian security forces remained a mystery to-day, with no official comment forthcoming from government sources here. What has still to be explained is whether the dead Africans were guerrillas or villagers caught in crossfire in last Thursday's shooting.

Yesterday's official communique on the incident did not state—*as is normal on these occasions*—that the dead were guerrillas. And there were unofficial reports here to-day that none of those killed was in fact a guerrilla. The reports said that one guerrilla was wounded and that all those who died were villagers.

The communique issued by the security forces said that an army patrol had gone to the rescue of a village headman who was being beaten up in the northeastern border war zone.

The communique said that when the patrol went to investigate, it "came under fire from a terrorist group. In the ensuing fight 20 people were killed." No members of the army patrol were hurt.

The unofficial reports circulating in Salisbury said that the incident occurred at night. There had been considerable confusion after the guerillas started firing and there was no reason to *assume that all the deaths were* the responsibility of the Rhodesian troops.

The guerillas were believed to be members of the Zimbabwe African National Union (ZANU), the most militant group involved in the fight against White minority rule in Rhodesia. Attacks on village headmen are a familiar tactic by the guerillas, who regard many of the headmen as being informers.

Reuter

Smith regime warns of 'austerity year'

BY TONY HAWKINS SALISBURY, June 15.

RHODESIANS have been warned by Finance Minister John Wrathall to expect a period of austerity lasting until the second half of next year. In a weekend statement Senator Wrathall attributes this to the world recession, transport problems in Southern Africa and "various pressures" which have been a consequence of the political situation in Southern Africa.

The Minister said that it was "common knowledge" that foreign currency allocations for the first half of 1975 had been "drastically reduced" compared with the second half of last year.

Rhodesia had been adversely affected by the oil crisis and subsequent recession in the Western world and prices for Rhodesian exports *had been* depressed. At the same time prices for finished goods from the industrialised world remained at *high levels*.

A substantial volume of Rhodesian exports which should have moved at a time when *prices were high* were delayed and only began to move after prices started to decline.

Mr. Wrathall said that as a result a "severe" reduction in imports in 1975 had been necessary. The Minister warned that the lower level of foreign currency allocations for imports *in the second half of this year* and the priority that must be given to imports of vital goods will inevitably mean that a wide range of commodities to which we have become accustomed will either be in extremely short *supply or no longer* available once existing stocks are exhausted.

Mr. Wrathall says that austerity must be accepted as "a necessary sacrifice" to the national interest during the "immediate critical period."

It was inevitable that there *would be unemployment and* underemployment in several sectors of the economy to a greater or lesser degree. Mr. Wrathall said, however, that he did not think that this situation would persist beyond the second half of 1976.

The Minister's statement is the bluntest warning yet to *Rhodesia* about the dificult economic situation it faces in 1975-76.

The Finance Minister's *remarks come just as businessmen* are expecting to hear their third quarter currency allocations for 1975. After the drastic cutbacks in the first half of the year, only moderate further reducations are being anticipated.

Although Rhodesian businessmen believe otherwise, there is little evidence to suggest that the difficult economic situation will influence Mr. Smith's policy *in respect of a constitutional conference*.

THE JOBS COLUMN

£15,000 for administrator

BY MICHAEL DIXON

I AM TOLD that a salary of around 90,000 guilders a year in Rotterdam is the equivalent (at the time of writing, anyway) of roughly £15,000 here. And that is what is being offered for the person needed to take over the secretary-generalship of the CIB, *alias* the International Building Research Council, from Wolter Bierens de Haan who is retiring because of poor health.

The CIB was founded 22 years ago to develop international co-veloping of various types in the fields of building, housing and planning. It has a total membership of about 200 organisations, of which 50 are full members. These cover all the major government research bodies concerned with building, and some industrial ones, from more than 50 countries.

Although the council has only four full-time central staff, the secretary-general's responsibilities include a lot of servicing work and so administrative ability is probably the first *essential. But another important* task is fostering links with international organisations—including the United Nations and its agencies, the International Standards Organisation, and professional bodies—which requires developed skill in diplomacy.

Candidates with both of these capabilities do not necessarily have to have experience in construction or even scientific research, and could come from either industry or public services. Nor do they need to speak Dutch. They should apply to the CIB president, James Dick, who is also director of the Building Research Establishment. The address for inquiries is the Building Research Station, Garston, near Watford WD2 7JR Tel. Garston (Herts.) 74040.

IF YOU LIKE the Gower Peninsula near Swansea (which I don't) and your are qualified in civil, mechanical, electrical or mining engineering, then you might like to consider a job being offered in the area with the British company of the international Thyssen group.

It is for a chief engineer, who will report to the deputy managing director of the company. The work ranges widely: investigation of technical, costing, and feasibility studies associated with design and building projects; new developments in con*struction techniques,* shaft and tunnel lining materials; ground strength and potential water inflows; ground treatment techniques; drilling, grouting, and new applications for machine excavation.

As well as formal qualifications, candidates need success at senior technical level and ability to take in technical information published in German and French, plus, of course, English.

The salary quoted is £6,000-£8,000. Fringe benefits include a car.

Applications to Wyn Jones of the Professional and Executive Recruitment office at Grove House, Grove Place, Swansea SA1 5DH—tel. 43481.

NOW FOR BRIEF details of a couple being handled from PER's headquarters at 4-5 Grosvenor Place, London SW1X 7SB—tel. 01-235 7030. Apply to the consultant named.

Mace Hakim International (M.E.) wants a sales manager with experience in the Middle East to take responsibility for increasing the company's market share in prefabricated building systems. The tasks include making short visits abroad to negotiate with officials in both private and public sectors. Experienced sales managers will have an advantage if they have worked in the architectural or civil engineering field. Age range is *28-40. Basic salary* is £6,000, plus bonuses and perks including a car. Martin Chapple, extension 216.

Someone with an engineering background is wanted as secretary for the Institute of General Technician Engineers in south-west London. Since an amalgamation is in the offing, the best candidates would be 50 to 55-year-olds seeking early retirement. Salary around £4,500. Dave Mason Johns, ext. 204.

I FIND that the lists of job openings being circulated fortnightly to this year's aspiring graduates contain a number suitable for young non-graduates who, having no automatic access to the lists, might well *not hear of the opportunities.* Here, exiguously, are some of them.

Administrative / actuarial trainees wanted by personnel manager of Australian Mutual Provident Society (AMP House, Dingwall Road, Croydon CR9 2AP).

Executive wanted by the director, British Plastics Federation (47 Piccadilly, London, W1V 0DN).

Salesmen wanted all over Britain by Brookhouse Insurance Brokers (Spencer House, Digbeth, Birmingham 5). Evening work involved.

Trainee salespersons and departmental managers wanted *by trainee-recruitment officer of* specialised automotive distributors Brown Brothers (Great Eastern House, Edinburgh Way, Harlow, Essex).

Executive trainees mobile throughout U.K. wanted by Mr. J. J. Grant of the management development department of C. and A. Modes (North Row, London W1A 2AX).

A £1.25m. research budget is helping wool retain its competitive edge against synthetics. David Fishlock reports

Why wool wants to lose its wrinkles

A NEW VERSION of the old soldier's trick of rubbing soap inside the seams of his uniform to make the creases sharper is being tried out by the Ministry of Defence. The seams of guards' trousers in thick blue melton, a felted wool fabric, have been treated with resin by a technique developed by the International Wool Secretariat. The idea is to spread just enough "glue" to set a permanent crease without either sticking the seam together or letting it show on the outside, as soap is apt to do.

It is one of the latest innovations to come from the Technology Centre of the IWS laboratories that nestle under the edge of Ilkley Moor in Yorkshire. It is one of the techniques which leads these laboratories to claim that nowadays a valet service for a woollen suit need mean nothing more than bundling it into a washing machine and hanging it up to dry. The obstacle, the scientists admit, is that few owners of woollen suits are yet prepared to believe them.

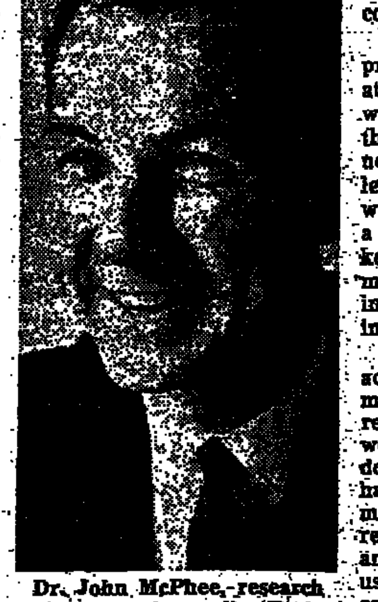
Dr. John McPhee, research director of wool's Technology Centre since it was opened in 1968, says that ever since he first embarked on wool research in Australia after the second World War people have been giving the wool industry "just another 15 years." This estimated lifespan has never lessened. One of the main reasons, he believes, is the effort of the IWS and its research programme to see that wool retains its competitive edge against synthetics.

Safeguard

The wool growers, although *not the first to embark on co*-operative research, have gone further than other traditional commodity markets to safeguard the future for their product, says Dr. McPhee. He himself has been helping the jute producers of India and Bangladesh to get a research programme going, with aid from the U.N. and the World Bank. Cotton producers have also made an effort through the International Institute for Cotton, but still have no research resources of their own.

The two traditional commodities whose producers have made a serious co-operative effort at using science to keep the commodity competitive are natural rubber and tin, both of which set up research centres in Britain in the 1930s. The Tin Research Institute dates from 1932, and is financed by a "cess" levied on producers by the governments of the six major tin-producing nations — Bolivia, Indonesia, Malaysia, Nigeria, Thailand and Zaire. Although the institute is unwilling to disclose its income, a research staff at Greenford of about 100 indicates a budget of about £400,000.

Part of its work ensures that tin stays competitive with rival metals like zinc, for instance in the case of tinplate by constantly improving the corrosion resistance of the thin tin coating on steel (which, ironically, reduces the amount of tin needed). Part of it explores entirely new outlets for tin. This has produced such innovations



Dr. John McPhee, research director of wool's Technology Centre: "Our role is to be able to recommend the best current technology to industry."

as an electroplated alloy of tin and nickel, lustrous and highly resistant to tarnish, which can replace gold plate in electronics circuits; and organo-tin compounds as non-toxic fungicides *for plants or in paints.* With the latter it has found a common interest with the wool producers, in producing fungicides for wool.

The Malaysian Rubber Producers Research Association is also funded by a "cess" levied on rubber growers by the Malaysian Government. It differs from tin and wool in that a single nation finds all the funds—some £900,000 last year—although international co-operation among rubber-producing countries has been "tentatively discussed." It also has the distinction of being the only research centre in a rubber-consuming country supported by rubber producers.

Again the research objectives are to maintain a competitive edge for the natural product by exploiting properties which, its scientists claim, have not yet been wholly matched in synthetic rubbers. The scientists point to its strength and resilience, its wear resistance, and the way that when repeatedly flexed it does not over-heat.

Wool, like natural rubber, has attributes which the scientist has not yet been able to imitate (though ICI once made a bold but abortive bid with a "synthetic wool" called Ardil). But it also has faults. Initially, the main object of the IWS research programme was to ameliorate those faults.

They found no research programme on which they could model their own effort, says Dr. Geoffrey Laxer, the scientist who planned the programme in the mid-1960s, and who next year will take over as managing director of the IWS. "We pioneered with a pretty clear-cut idea of what we wanted to achieve—to make wool more competitive."

Technically, the research programme has had two remarkable successes. One is Superwash, a process to confound those who say that "wool is not washable:" it allows woollens to be washed in any washing machine. The other is a flameproofing process that has kept wool competitive in markets—notably for carpets—in which fire tests were becoming stringent.

Even so, the secretariat accepted from the start that no matter how successful its research, the textile world would never beat a path to its door. The Technology Centre had to play a vigorous part in marketing the results of its research. It had to be willing and able to demonstrate to wool users worldwide that its ideas could be applied to their particular products and processes.

Superwash started as a laboratory discovery by Dr. McPhee in the early 1960s. He found that minuscule "fish scales" covering every wool fibre become enmeshed during washing, so that the fibres are gradually entangled more and more tightly. Since the "fish scales" contribute vitally to wool's properties there can be no question of scraping them off.

The answer was to coat the fibres with just enough resin to prevent them enmeshing, but not so much that it would interfere with the aesthetics of the wool fibre, turning them into a "synthetic." The task of the Technology Centre was to transform a laboratory idea into an industrial process, applicable to continuous or batch operations under a great diversity of industrial conditions.

Success with Superwash came in 1970, with a batch non-shrink process that worked well for Bremer Woll-Kammerei in West Germany, Europe's biggest wool top producer. It spread about 1.5 per cent. by weight of a resin uniformly over the wool fibres. This year it is estimated that about 28m. woollen garments will be made worldwide from wool so treated. In France, Teinturerie des Frênes, for which the Technology Centre helped put in the first big continuous plant, has recently asked its aid in installing a second plant.

The flameproofing story is almost entirely associated with the Ilkley laboratories. Wool, claims Dr. McPhee, is naturally flame-resistant, but new U.S. fire tests threatened to exclude wool from some important markets, such as aircraft fabrics and ca- pets. An IWS chemist traced the higher flame resistance of tain woollens to chrome dyes. The trail led him to metal com- plexes of titanium and zir- conium which, when present in the burning wool, release vapours that can "snuff out" flame.

The flameproofing process proved not only highly adaptable to a great variety of processing conditions but essentially inex- pensive. The scientists say it adds only 2—4 per cent. to the cost of an average carpet yarn dyed with conventional acid dyes. At least 20m. lbs. of wool has been flame-proofed by the process they launched in 1972.

One of the early actions of the new Technology Centre was to buy an expensive U.S. study of the future of textiles. It forecast that within ten years there would be no more woven tex- tiles. The future lay with paper- making techniques and dispos- able products. It was a fight, says Dr. McPhee, to resist pres- sures to accept the forecast and redirect his research effort.

Wool won the battle, and the Technology Centre's research budget donated by the four major wool-growing nations— Australia, New Zealand, South Africa and Uruguay—has grown from about £200,000 in the late 1960s to £1.25m. to-day.

Synthetics

The big unsolved problems in wool performance to-day are wrinkle resistance in men's suits and discoloration by sun- light of whites and pale colours. Neither, however, will become a target for the Tech- nology Centre until some new research leads emerge, perhaps from the Government labora- tories in one of the wool-grow- ing nations, or from the £250,000 spent by Dr. McPhee on contracts with university re- search workers.

The big question mark is the performance which synthetic fibres may be able to offer the textile manufacturer in another decade or so. On the processing side there is the pos- sibility of gas-phase processing of synthetics, in which the fabric would never need to be wet, but would pass successively through a number of vapour stages for dyeing, flameproof- ing, and so on.

A still greater challenge to wool could come from "no- care" synthetics that resist soiling. The clue may be found in the big efforts now being made by the manufac- turers to eliminate "static," the electrostatic charges that cause synthetic garments to cling and to crackle when doffed, as well as dirt to adhere to the fibres. Even the Tech- nology Centre's "easy-care" concept of woollen suits that can be washed and dried with- out shrinking or re-pressing might find it tough to compete with clothes that need virtual- ly no cleaning.

Textile trading stagnant

Financial Times Reporter

TEXTILE TRADING has been relatively stagnant in the first four months of this year according to figures published this week-end by the Textile Distributors Association for wholesale trading.

The most buoyant sector over the period has been women's outerwear, which showed an increase of 20 per cent. over the first four months of 1974 in sales by value and a 52 per cent. increase in April compared with the same month last year. A 16 per cent. increase also took place in sales by value of floorcoverings.

In several other sectors, including men's and boys' shirts and outfitting, haberdashery, women's knitted outerwear, blouses, and skirts, and piece goods, relatively small increases over the January-April period in 1974 were recorded, suggesting a decline in real sales when the effects of inflation are taken into account.

In five of the 13 sectors defined by the TDA—women's hose, children's wear, gloves, household textiles and shoes—a decline took place over sales in the same four months last year.

London tea sales

At the tea sales held in London last week 45,891 packages sold realised an average price of 60.77p per kilo, compared with 59.21p at the previous sale and against 38.61p a year ago. Plain tea was quoted at 58p.

	No. of kilos	Average per kilo
African Highland Prod.	67,070	61p
Amgoorie	9,339	39½p
Assam Co.	31,997	52p
Assam Dooars	12,090	58p
Assam Estates	14,827	61p
Assam Frontier	38,128	60p
Attaree Khat	15,422	62½p
Bogawantalawa	14,736	64½p
British Africa	41,470	58p
Central Africa	33,362	38p
Chulwa	7,712	60p
Dekhari	39,181	61½p
Duckwari	13,664	58½p
Eastern Assam	28,635	62p
Halpaba	10,318	62p
Jokai	60,324	57½p
Kanan Devan	25,514	61p
Kenya	47,963	64½p
Lanka	12,918	63p
Luleri	13,519	62½p
Nayabedde	35,870	63p
New Dimbula	18,460	64p
Orvah	33,775	61½p
Pabbalan	60,588	61½p
Spring Valley	25,093	63½p
Tanganyika	25,963	65p
Talbadde	11,533	70½p
Thanai	13,860	65p
Tukuyu	28,919	62½p
Upper Assam	30,036	60½p

Stocks at June 6 amounted to 60,202 metric tons compared with 38,462 metric tons a year ago. Converted at 48,905 kilos per package.

Beralt Tin and Wolfram, Limited

EXTRACTS FROM THE STATEMENT BY THE CHAIRMAN, MR. L. G. STOPFORD SACKVILLE

On 25 April 1974 the Armed Forces Movement took the first steps towards establishing a new administration to govern in Portugal and a new social and economic programme was prepared with the object of advancing the interests of the Portuguese people and promoting progress within the country. Your company's subsidiary which undertakes the wolfram mining operations at Panasqueira has endeavoured to participate in and make its contribution to this new programme.

The new government has declared that it intends to participate to a greater extent in commerce and industry including mining in Portugal. At the time of writing no specific proposals have been made concerning your company but shareholders will be kept fully informed of any developments.

Production during the year amounted to 1827 tonnes of wolfram concentrates, compared with 1860 tonnes in 1973, the lower output being attributable mainly to the unsettled labour situation which resulted in the treatment of a lesser tonnage of ore. Tin concentrate production, however, increased from 49 tonnes in 1973 to 70 in 1974 and copper concentrates increased from 682 to 843 tonnes. In May 1974 there was a strike at the mine which lasted one week. Although a negotiated settlement was reached, the unsettled situation led to claims for further increases in remuneration being presented continually throughout the year, resulting in an increase in total labour costs of over eighty per cent.

Wolfram concentrate sales during 1974 amounted to 3032 tonnes compared with 1409 tonnes the previous year. Bearing in mind production of 1827 tonnes, it will be seen that it was possible to sell the whole of the stockpile accumulated in previous years when wolfram prices were low, as well as the major part of the year's production. This had the effect of reducing stocks to a more normal level. The market for wolfram demonstrated its volatility by moving from £22 per metric ton unit in January to a peak of £50 in September before returning to £38 in December. Sales of both tin and copper concentrates were also higher than last year: 62 tonnes of tin concentrates were sold compared with 42 in 1973, and 1025 tonnes of copper concentrates compared with 466 the previous year.

World-wide inflation continued throughout 1974 and costs continued to rise in Portugal. Every effort has been made to contain cost increases at the mine but materials, services and wages have all risen substantially. Against this background, the maintenance of production, substantially increased sales and higher wolfram prices combined to produce exceptional financial results. Consolidated profit before tax and extraordinary items amounted to £3,065,618. Profit after tax, minority interests and extraordinary items amounted to £1,858,338, and after deducting £139,784 in respect of a legal reserve established by the operating subsidiary the profit for the year amounted to £1,718,554. This latter figure compares with a loss of £7,205 last year, which has been adjusted to reflect a change in the company's method of accounting for silicosis claims.

Shareholders will have seen that it has not been possible to declare a dividend at the present time. Your company holds 80.85% of the equity of its Portuguese subsidiary company which operates the mine, and the dividend your company can distribute depends upon the dividend it receives from its subsidiary. In view of the level of profits earned in 1974 and the fact that shareholders not only subscribed £2.2 million in new equity in 1973 but also have received no dividends since the distribution in respect of profits earned in 1970, the subsidiary after taking into account its economic and social responsibilities has declared a dividend in Portuguese currency equivalent to £1.5 million. Application has been made to the Portuguese authorities for the remittance to the United Kingdom of your company's share of this dividend which, being unfranked income, will be subject to United Kingdom corporation tax less double taxation relief. Consent has not yet been given to this remittance and so it is not possible for your company to consider the declaration of a dividend; however, the transfer of our full entitlement at the current sterling-escudo exchange rate would cover the distribution of approximately 4p per share.

Looking ahead to 1975, the Portuguese government has expressed a wish to see increased employment opportunities in Portugal and therefore the feasibility of further processing the wolfram concentrates produced at Panasqueira is being re-examined. It is, however, anticipated that wolfram production will be slightly lower than in 1974 because of continuing difficulties in recruiting and retaining an adequate workforce. The tungsten committee of the United Nations Conference on Trade and Development (UNCTAD) has been studying means of stabilising the notoriously volatile tungsten price at equitable levels to try to protect producers and consumers from the inherent difficulties caused by wide fluctuations. In addition a Primary Tungsten Association has recently been formed to assist UNCTAD and to further the interests of the tungsten industry.

Copies of the Chairman's statement and the annual report and accounts may be obtained from the registered office of the company, 40 Holborn Viaduct, London EC1P 1AJ or from the transfer office at P.O. Box 102, Charter House, Park Street, Ashford, Kent TN24 8EQ. The annual general meeting will be held at 7 Rolls Buildings, Fetter Lane, London EC4A 1HX on Tuesday, 8 July 1975, at 12 noon.

Entertainment Guide

OPERA & BALLET

COVENT GARDEN. 240 1911.
THE ROYAL OPERA
Tonight, Thur. & Sat. 6.30 Die Frauohne Schatten. Tomorrow 7.30 Madama Butterfly. Fri. 7.30 Falstaff. Seats available except tomorrow.
Theatre closed Wed.

GLYNDEBOURNE FESTIVAL OPERA. Until August 6 with the London Philharmonic Orchestra. Tomorrow & Fri. at 5.30 The Cunning Little Vixen (Janacek). Tats. still unsold the previous day offered at 2 for the price of 1. Wed. & Sun. at 5.15 Yevgeny Onyegin (Tchaikovsky) Sat. at 5.30 The Rake's Progress (Stravinsky) possible returns only. Box Office: Glyndebourne, Lewes (Ringmer 812411) & Ibbs & Tillett, 124, Wigmore St. (01-935 1010).

SADLER'S WELLS THEATRE. Rosebery Ave. EC1. 837 1672. Until June 28. NEDERLANDS DANS THEATER Tonight 7.30: Moves, Eclipse, Juice.

THE ROYAL BALLET AT BATTERSEA PARK. 240 1911. Today 1.30 & 7.30: Swan Lake. Tomor., Wed. & Thur. 7.30: La Bayadere, Side Show, Shukumei, The Concert. Thur. 2.30: La Bayadere, Flower Festival, Shukumei, The Concert. Fri. 7.30. Sat. 2.30 & 7.30: Swan Lake. Seats avail. tonight & Sat. mat. Bkgs. day of perf. at Royal Opera House until 5pm., then at Battersea Park from 6pm.

THEATRES

ACT INN. 37 Brewer St., W.1. Prevs. Tnt. Tmr. Wed. 8.0. Gala Prem. Thurs. 7.0. Subs. Tues.-Sun. 8.0. Patricia Samuels. Richard Huggett

THE FIRST NIGHT OF PYGMALION

ADELPHI THEATRE. 01-836 7611. Evgs. 7.30. Mat. Thurs. Sat. 3.00. "JEAN SIMMONS returns in triumph." E.N. HERMIONE GINGOLD "Fabulous woman." D. Mirror. JOSS ACKLAND "Beautiful performance." Observer.
A LITTLE NIGHT MUSIC
"Music That Ravishes The Senses. A Show Kissed with Genius." Guardian.

ALBERY. 836 3878. Opens tonight 7. Subs. 8. Sats. 5 & 8.15. Mat. Thur. 3. JUDI DENCH DANIEL MASSEY
THE GAY LORD QUEX
with SIAN PHILLIPS
Directed by JOHN GIELGUD

ALDWYCH. 836 6404.
Return by public demand of Tom Stoppard's award-winning
TRAVESTIES
"Should on no account whatever be missed." Obs. (Evgs. 7.30. Mat. Sat. 2.30)—Ends July 12. Recorded booking info 836 5332.

AMBASSADORS. 836 1171. Mon.-Th. 8.15. Fri. 6: 8.15. Sats. 6.30: 8.45. Geoffrey SUMNER. Jane DOWNS. Terence ALEXANDER. Joyce HERON. Bill KERR. Marguerite HARDIMAN. Helen GILL. Ray COONEY in London's Hit Comedy
THERE GOES THE BRIDE
Seats £2.50. £2. £1 OR All Inclusive Top price Theatre Ticket plus Dinner at a delightful nearby restaurant. £5.50 per head.

AMBASSADORS. Also Late Night Revue at 11.15 p.m. to 12.15. All tickets £1.
HINGE & BRACKET
SIXTY GLORIOUS MINUTES

APOLLO. 437 2663. Evenings 8.00. Mats. Thurs. 3.00. Sats. 5.00 and 8.30.
MARGARET LEIGHTON ALEC GUINNESS
in A FAMILY AND A FORTUNE

ARTS THEATRE CLUB. 836 3334. Great Newport St. (adj. Leic. Sq. Underground). Instant temp. membership available 15p. Evenings Tues. and Sun. at 8.00.
King's Head Theatre production
KENNEDY'S CHILDREN
"The PLAY IS FANTASTIC." Observer.

CAMBRIDGE THEATRE. 836 6056. "MUSICAL HIT OF THE SEASON." E.N. Michael DENISON. Derek GRIFFITHS. Val PRINGLE. Norman BEATON in
THE BLACK MIKADO
"TERRIFIC ENTERTAINMENT." S. Exp. Evgs. 7.30. Mat. Tues. Sat. 2.30.

CHICHESTER. 0243 86333. Tonight & June 18, 19 at 7.0. June 21 at 2.0 AN ENEMY OF THE PEOPLE "Tremendous, undiluted, overwhelming, uproarious fun." S. Times. June 17, 20, 21 at 7.0. June 19 at 2.0 CYRANO DE BERGERAC "Jose Ferrer's Carnival Production triumphs." D. Exp.

COMEDY. 930 2578. Evgs. 8.00. Sats. at 5.30 and 8.30. Matinees Thurs. 3.00. "The delectable HAYLEY MILLS." D.T. PETER DONAT, LEIGH LAWSON "Samuel Taylor's Joyous Comedy." E.N.
A TOUCH OF SPRING
"Effervescent direction by Allan Davis." F.T. "THE AUDIENCE were WEAK with LAUGHTER." F.T. "THIS FROLIC IS SUCH FUN." E.N.

CRITERION. 930 3216. Evgs. 8. Sats. 5.30 and 8.15. Mats. Thurs. at 3.
GERALDINE McEWAN RODERICK COOK
JAMIE ROSS
"OH COWARD!"
"COWARD HAS ALWAYS HAD BRILLIANT INTERPRETERS — BUT NONE MORE BRILLIANT THAN THESE" S. Times.

DRURY LANE. 836 8108. Evenings 7.30 Matinees Wed. and Sat. 2.30
MICHAEL CRAWFORD in
BILLY
A NEW MUSICAL
"MICHAEL CRAWFORD A WHOPPING WONDERFUL STAGE STAR." News of the World. "HE AND HIS SHOW ARE A TREAT." Sunday Express.

DUCHESS THEATRE. 836 8243. Evenings 8.00, Fri. Sat. 6.15, 9.00
ALIVE ON STAGE
OH! CALCUTTA!
OVER 1,500 PERFORMANCES
"BREATHTAKINGLY BEAUTIFUL" S.Tel. "THE NUDITY IS STUNNING." D. Tel.

DUKE OF YORK'S. 836 5122. Evs. 8.00. Sats. 5.00 & 8.30. Mats. Th. 3.00.
BERYL REID, MALCOLM McDOWELL, RONALD FRASER
ENTERTAINING MR. SLOANE
From the JOE ORTON Festival
Contains not only the funniest seduction scene in modern theatre, but performances from Beryl Reid and Malcolm McDowell that will surely find their way into everyone's 10 best list. Sunday Express.

FORTUNE. 836 2238. Evenings at 8.00. Sats. 5.30 & 8.30. Th. 2.45 red. prices.
SLEUTH
"THE BEST TRILLER EVER."
N.Y. Times. 6th GREAT YEAR.

GARRICK. 836 4601. Evgs. 8.00 SHARP. Sat. 5.00 & 8.30. Red. price Wed. 3.00.
ROBERT STEPHENS in
MURDERER
by ANTHONY SHAFFER
"BRILLIANT AND EXCITING."

GLOBE THEATRE. 437 1592.
BEST PLAY OF THE YEAR
Evening Standard Drama Award
RONALD PICKUP in
THE NORMAN CONQUESTS
by ALAN AYCKBOURN
TABLE MANNERS Tnt. & Wed. 8.15 Sat. 5.30: LIVING TOGETHER Tomor. & Th. 8.15 Sat. 8.30: R'ND & R'ND THE GARDEN Wed. 3.0, Fri. 8.15.

GREENWICH. 858 7755. CHARADES. Evgs. 8.0. Until July 5.
THE KNIGHT OF THE BURNING PESTLE

HAYMARKET. 930 9832. Evgs. 7.45. Mat. Wed. 2.30. Sat. 4.30 and 8.00.
JOHN CLEMENTS
in Ronald Millar/C. P. Snow's
THE CASE IN QUESTION
"An excellent evening's entertainment. . . . an enthralling story."
—Harold Hobson, Sunday Times.

HER MAJESTY'S. 930 6606. Evgs. 8.00, Fri. and Sat. 6.00 and 8.40.
HAIR

KING'S ROAD THEATRE. 352 7488. Mon. to Th. 9.00. Fri. Sat. 7.30, 9.30.
THE ROCKY HORROR SHOW
BEST MUSICAL OF THE YEAR
Evening Standard Drama Award '73

LYRIC. 437 3686. Evenings 8.00. Fri. 8.30. Thurs., Sat. 5.00 and 8.30.
JOHN, PAUL, GEORGE, RINGO . . . AND BERT
Evening Standard Award—
BEST MUSICAL OF THE YEAR
Plays and Players Award—
BEST MUSICAL OF THE YEAR

MAY FAIR. 629 3036. Fully air cond. Evenings 8.15. Sat. 5.30 and 8.40.
BILLIE WHITELAW, BARBARA FERRIS and DINSDALE LANDEN in
ALPHABETICAL ORDER
"Michael Frayn's comedy is a delightful experience." Evening Standard.

MERMAID. 248 7656. Food 248 2835. Opens Th. 7.0, Subs. 8.15, Sat. 5.0, 8.15 (Th. 2.30 Red. prices)
THE MERRY WIVES OF WINDSOR
by Shakespeare
FULL DINNER WINE & BEST THEATRE SEAT FOR £4.95

NEW LONDON. (405 0072.) THURBER played by WILLIAM WINDOM a rare and memorable evening of laughter. Opens Mon., June 23 at 7.0. Subs. Mon. to Thur. 8.0. Fri., Sat. 5.30, 8.30.

OLD VIC. THE NATIONAL THEATRE. (928 7616). Ton't. & Tomor. at 7.30 Last 2 performances of: Henrik Ibsen's
JOHN GABRIEL BORKMAN
Wed. 7.30 & Thursday at 2.15 & 7.30:
NO MAN'S LAND
Friday 7.30 & Saturday 2.15 & 7.30:
HEARTBREAK HOUSE
Some seats held for sale day of performance from 10 a.m.

OPEN AIR. Regent's Park. 01-486 2431 New Auditorium opening delayed. THE TAMING OF THE SHREW play Round House until July 5. A MIDSUMER NIGHT'S DREAM opens here July 16.

OPEN SPACE. 580 4970. Temp m'ship Nitly. 8.0 (ex Mon.) MEASURE FOR MEASURE Shakespeare/Marowitz "A fascinating exercise in textual tampering." D. Tel.

PALACE. 437 6834. Mon.-Thurs. 8.00. Fri. and Sat. 6.00-8.40.
JESUS CHRIST SUPERSTAR

PALLADIUM. 437 7373. Evenings 7.30. Mats. Wed., Sat. 2.45.
TOMMY STEELE
IN LONDON'S
MOST BEAUTIFUL MUSICAL
HANS ANDERSEN
"SUMPTUOUS SPECTACLE. SPLENDID SONGS. IT'S WONDERFUL." Div. Exp.
SEATS AVAIL. THEATRE AND AGENTS.

PHOENIX THEATRE. 01-836 8611. Evenings 7.45. Sat. 5.45 and 8.45.
GODSPELL
"IS MAGNIFICENT." Sunday Times.
LATE NIGHT PERF. FRIDAY 10.45.

PICCADILLY. 437 4506. Evgs. 8. Sats. 5.30 and 8.30. Matinees Wed. at 3.
JIMMY JEWEL, ALFRED MARKS
in NEIL SIMONS
THE SUNSHINE BOYS
"Audience rocking in their chairs."—D. Express. "A laugh a minute." D. Tel. "Continuous laughter." E. Std.

PRINCE OF WALES. 930 8681. Evenings 8.00. Mats. Wed., Sat. 3.00.
JAMES STEWART
in HARVEY
"Heartwarming triumph." Ev. News.
LIMITED SEASON ONLY.

QUEEN'S. 734 1166. Red. price prevs. tnt. tmr. 8.0. Opens Wed. 7.0. Subs. Evgs. 8.0. Mat. Thurs. 3.0. Sat. 5.30 & 8.30
VINCENT PRICE
CORAL BROWNE
CHARLES GRAY in
ARDELE
A Play by JEAN ANOUILH

RAYMOND REVUE BAR THEATRE. 734 1593. At 7 p.m., 9 p.m., 11 p.m. PAUL RAYMOND presents
THE FESTIVAL OF EROTICA '75

REGENT. 323 2707. Evenings 8.30. Fri., Sat. 7.00 and 9.15.
10th MONTH OF SENSATIONAL STAGE SHOW OF THE '70s
LET MY PEOPLE COME
—An ADULT MUSICAL
"Never a dull moment." Evening News. 100 tickets held for sale at door.

ROUND HOUSE. 267 2564. Evgs. Mon.-Fri. at 8. Sats. 5, 8.30. Mats. Wed. and Thurs. at 2.30. Until July 5.
Jeremy Irons Zoe Wanamaker
"Both excellently attuned performances." Sun Telegraph in
THE TAMING OF THE SHREW
"SPIRITED EVENING OF MASQUERADING COMEDY." Daily Tel.

ROYAL COURT. 730 1745. Air cond.
JOE ORTON FESTIVAL
Evgs. 8. Sats. 5 & 8.30
JILL BENNETT PHILIP STONE
LOOT
"Non-stop laughter." D. Mir.

SAVOY. 01-836 8888. Evenings 8.00, Sat. 5.00 and 8.15. "ALASTAIR SIM at his best." D. Tel. RON MOODY DANDY NICHOLS
THE CLANDESTINE MARRIAGE
Directed by IAN McKELLEN

SHAFTESBURY. 836 6596. Mon.-Fri. 8.00. (Mat. Friday 5.00. Reduced 75p-£1.50.) Sat. 5.30 and 8.30
WEST SIDE STORY
"Bursting to life with undiminished theatrical excitement." S. Tel. "A definite winner. I strongly recommend it." F.T. "Miracle." Guardian. "Brilliant." S. Tel.

SHAW THEATRE. 01-388 1394 Evgs. 7.30. Mat. Tues., Fri. 3.00.
SUSAN HAMPSHIRE in
AS YOU LIKE IT

ST. MARTIN'S. 836 1443. Evenings 8.00. Mats. Tues. 2.45. Sats. 5.00 and 8.00.
Agatha Christie's
THE MOUSETRAP
World's longest-ever run 23rd YEAR.

STRAND. 836 2660. Evenings 8.00. Mats. Thurs. 3.00. Sat. 5.30 and 8.30.
DORIS HARE. LEO FRANKLYN. RICHARD CALDICOT. ANDREW SACHS.
NO SEX PLEASE, WE'RE BRITISH
Directed by Allan Davis
LONDON'S LONGEST LAUGHTER HIT.

TALK OF THE TOWN. 01-734 5051. From 8.15, Dining and Dancing. At 9.30: New Revue SWEET TEMPTATION Opening Thursday 11 pm:
CLIFF RICHARD

VAUDEVILLE. 836 9988. Fully air cond. Ev. 8.0. Mat. Tu. 3.0, Sat. 5.30, 8.40.
MILLICENT MARTIN AMANDA BARRIE
in ALAN AYCKBOURN'S
ABSURD PERSON SINGULAR
Best Comedy of Year. E. Std. Award 73.

VICTORIA PALACE. 834 1317. (No perfs. Monday). Tues., Fri. 8.00. Wed., Thurs., Sat. 6.00 and 8.45
MAX BYGRAVES in
"SWINGALONGAMAX"
New Song and Laughter Spectacular with Rogers and Starr, Bobby Crush, Denise Keene and Happy and Full Co.

WHITEHALL. 930 6692-7765. Evs. 8.30. Wed. and Sat. 6.15 and 8.45.
PAUL RAYMOND presents
THE CONFESSIONS OF A SEX STAR
SNATCH 69
FANTASTIC HILARIOUS EROTIC ENTERTAINMENT

WIMBLEDON. 01-946 5211.
ACTORS COMPANY SEASON
Ton't 7.30. Tomor. 7. Wed.-Fri. 7.30. Saturdays at 5 & 8.15.
THE LAST ROMANTIC

WINDMILL THEATRE. 437 6312
PAUL RAYMOND presents
LET'S GET LAID
featuring JOHN INMAN
"ARE YOU BEING SERVED?"
Twice Nightly at 7.00 and 9.00.

WYNDHAM'S. 836 3028. Evenings at 8.00 Sat. 5.00 and 8.30. Mats. Wed. 3.00.
"PAUL SCOFIELD as Prospero SHOULD NOT BE MISSED ON ANY ACCOUNT." B. A. YOUNG—Financial Times.
(Limited Season)
THE TEMPEST
Last Weeks. Must close July 12.

YOUNG VIC (by Old Vic). 928 6363. Tonight at 8 p.m. ASHES.

CINEMAS

ABC 1 & 2 SHAFTESBURY AV. 836 8861 Sep. Perfs. ALL SEATS BKBLE.
1: THE GODFATHER PART II (X) Wk. & Sun. 2.45, 8.00.
2: MURDER ON THE ORIENT EXPRESS (A) Wk. & Sun. 2.30, 5.30, 8.30.

CASINO. 437 6877. EARTHQUAKE (A). You'll FEEL it as well as see it in SENSURROUND. Sep. Perfs. daily at 2.30, 5.30, 8.30. Seats Bookable.

CURZON, Curzon Street, W.1. 499 3737. ALICE DOESN'T LIVE HERE ANYMORE (AA). Progs. at 7.55 (not Sun.). 4.00, 6.15, 8.30. Late show Sat. 11 p.m.

EMPIRE. Leicester Square. THE DAY OF THE LOCUST (X). Progs. Daily 2.00, 5.10, 8.15. Late Show 11.30 p.m. Sep. Perfs. All seats bookable. No phone bookings.

LEICESTER SQUARE THEATRE. 930 5252 See! Hear! Feel! TOMMY (AA). The film event of the Year. Sep. Perfs. 1.20, 4.30, 8.00. Sun. 4.30, 8.00. Late show Fri. & Sat. 11.15. All seats bkble.

ODEON HAYMARKET (930 2738/2771) Warren Beatty, Julie Christie, Goldie Hawn in SHAMPOO (X) Sep. perfs. Wk. 1.15, 4.45, 8.15 Shampoo at 1.55, 5.30, 8.55. All seats bkble.

CINEMAS ARE CONTINUED ON PAGE 10

ART GALLERIES

ENGLISH WATERCOLOURS presented by IVOR BRYAN. ALPINE GALLERY, 74 South Audley St., W.1. June 17 to 28. 10-5.30. Sats. 10-1. June 19: 10-8.

CLUBS

THE GASLIGHT
(A Gentleman's Club)
of ST. JAMES'S, S.W.1
Cabaret spots every half-hour
Restaurant facilities
Cover Charge: £2.00
Open 9 p.m. till early hours — Mon. to Sat inclusive
Enquiries for
PRIVATE STAG PARTIES
Tel: 930 1648 after 6 p.m.
WELCOMED
Tel. 734 1071 (daytime)
No membership required for out-of-town and overseas visitors
4 Duke of York St.
(Jermyn Street).
Piccadilly, S.W.1

WEEK'S FINANCIAL DIARY

The following is a record of the principal business and financial engagements during the week. The Board meetings are mainly for the purpose of considering dividends and official indications are not always available whether dividends concerned are interims or finals. The sub-divisions shown below are based mainly on last year's timetable.

TODAY

COMPANY MEETINGS—
Aquascutum. 100 Regent St., W., 12.30
British Investment Trust. 48 Castle St., Edinburgh, 12.30
British Syphon. Sheffield. 12.30
European Ferries. Old Broad St., 11
Hall (Matthew). Dorchester Hotel. 12
Hammerson Property and Investment Tst., 100 Park Lane. W., 12
Lindsay and Williams. Leeds. 10
Portals. Connaught Rooms, W., 12.30

BOARD MEETINGS—
Finals:
Atkins Bros. (Hosiery)
Bulmer and Lumb
Caffyns
Clover Dairies
Country and New Town Props.
Electric and General Inv.
Paterson (R.)
Property Holdings and Inv. Trst.
WGI
Warren Tea
West Cumberland Silk Mills
Wolverhampton Steam Laundry
Interims:
Anglo American Gold Inv.
Comet Radiovision Services
Lonsdale Universal

DIVIDEND & INTEREST PAYMENTS—
A.E. and C.I. Pf., 2.75p
Bebington 6⅞pcBds. Red. 17/12/75. 3⁷⁄₁₆pc
Cedar Inv. Trust Deb. Stk., 2½pc
Cole (R.H.), 1.5498p
Common Bros., 2p
Consolidated Tea and Lands 5pcPf., 1.75pc
7pcPf., 2.45pc
Continental Can, 45 cts.
Cummins Engine, 25 cts.
Cutler-Hammer, 40 cts.
East Asiatic Rubber Estates, 1.612p
English Electric Deb. Stk., 2¾pc
General Motors B.D.R.'s, 3 cts.
Gibson (W.) 4½pcPf., 1.575pc.
Haden Carrier, 4.018p
Hambro Trust 6pcPf., 2.1pc.
Hammerson Prop. and Inv. Trust Ord. and A. 4.52p
Herman Smith, 0.23p
Honeywell, 35 cts.
Int. Systems and Controls, 6.25 cts.
King and Shaxson 5pc2nd.Pf., 1.75p
Massey-Ferguson, 25 cts.
Newman Granger, 0.56p
Peterborough 7⅛pcBds. Red. 15/12/76. 3⁹⁄₁₆pc.
Rawtenstall 7⅛pcBds. Red. 15/12/76. 3⁹⁄₁₆pc.
Scottish American Inv. Trust 10pcPf., 3.5pc.
Sherman (Samuel), 0.635p
Tate of Leeds, 0.625p
Trafalgar House Invs. Deb. Stk., £2.45
Trust Bank of Africa, 3.5 cts.
United Biscuits Deb. Stk., 3¾ and 4pc. Ln. Stk., 2⅝pc.
Winterbottom Trust 5pcPf., 1.75pc.

TOMORROW

COMPANY MEETINGS—
Bodycote International. Manchester. 12
C.H. Industrials. 48 St. Martin's Lane. W.C., 12
Crystalate. Abercorn Rooms, Great Eastern Hotel. E.C., 11
Duncan (Walter) and Goodricke. 37 Mincing Lane, E.C., 11.45
Tarmac. Hyde Park Hotel. Knightsbridge. S.W., 12
Wadham Stringer. Albany Inn. Hayling Island. 12

BOARD MEETINGS—
Finals: British Steam Specialties. Doncaster (D.). Ewer (George). Fertleman (B.). GEI Intnl. Hargreaves Grp. Land Secs. Inv. Tst. Lawrence (William). Pickles (William). Sketchley. Triplex Foundries.

DIVIDEND & INTEREST PAYMENTS—
British Inv. Trust, 1.85p
British Syphon, 0.716p
Dover Corp., 30 cts.
Golden Hope Plantations. 0.41p
Green's Economiser Ln. Stk., 4⁹⁄₁₆pc.
Hepworth (J.) A and B. 0.55p
Lindsay and Williams. 1.06p
Malayan Tin Dredging. 4p
Marks (Alfred) Bureau, 1.95p
Ovenstone Invs., 8 cts.
Southern Malayan Tin Dredging. 4p

WEDNESDAY, JUNE 18

COMPANY MEETINGS—
Albany Investment Trust. Castle Chambers. Castle St., Liverpool. 2.30
Boosey and Hawkes. Cafe Royal, W., 12
British Borneo Petroleum Syndicate. Winchester House, 12
City of Oxford Investment Trust, 41 Bishopsgate, E.C., 11.30
Duport. Midland Hotel, New St., Birmingham. 12.30
Gill and Duffus. Bakers Hall. E.C. 12
Shiloh Spinners. Royton. 11.30
Trust Union. Winchester House. 77 London Wall. 2.30
Viking Resources Trust. 88 Leadenhall St., E.C., 4.30
Wood (Arthur) (Longport). Bradwell Works. Stoke-on-Trent. 12

BOARD MEETINGS—
Finals: Cattle's (Hldgs.). Central and Sheerwood Tst. Dom Higgs. House Property of London. Invergordon Distillers. Jones (H. C.). Lloyd (F. H.). London and Northern Secs. Property and Reversionary Inv. Rexmore. Shaw and Marvin. Tesco. Unerman. Whitbread.
Interims: Avon Rubber. Cardiff Malting. CompAir. Dennis (James H.). Guinness (A.). Lindustries. Tollemache and Cobbold.

DIVIDEND & INTEREST PAYMENTS—
Aberdeen 12¾pcBds. Red. 18/6/75. £6.5846
Albany Inv. Trust. 0.5525p
Arfon 14½pcBds. Red. 31/12/75. 7¼pc.
Ashton in Makerfield 7¾pcBds. Red 18/6/75. £3.9599
Beaconsfield 12¾pcBds. Red. 18/6/75. £6.5846
Berwick Upon Tweed 12¾pcBds. Red. 18/6/75. £6.5846
Brentwood 12¾pcBds. Red. 18/6/75. £6.5846
Broxtowe 12¾pcBds. Red. 18/6/75. £6.5846
C. H. Industrials. 1.1695p
Camden 14½pcBds. Red. 31/12/75. 7¼pc.
Cannock Chase 12¾pcBds. Red. 18/6/75. £6.5846
Central Scotland Water Dvlpmnt. Bd. 12¾pcBds. Red. 18/6/75. £6.5846
Charnwood 14½pcBds. Red. 31/12/75. 7¼pc.
Chester 14½pcBds. Red. 31/12/75. 7¼pc.
Clackmannan 14½pcBds. Red. 31/12/75. 7¼pc.
Consett 7¾pcBds. Red. 18/6/75. £3.9599
Cotswold 12¾pcBds. Red. 18/6/75. £6.5846
Cumbernauld 14½pcBds. Red. 31/12/75. 7¼pc.
Derby 14½pcBds. Red. 31/12/75. 7¼pc.
Derwentside 14½pcBds. Red. 31/12/75. 7¼pc.
Duncan (Walter) and Goodricke. 14.2375p
Duport. 1.88588p
East Hertfordshire 12¾pcBds. Red. 18/6/75. £6.5846
Edinburgh 14½pcBds. Red. 31/12/75. 7¼pc.
Forest Heath 14½pcBds. Red. 31/12/75. 7¼pc.
Guildford 12¾pcBds. Red. 18/6/75. £6.5846
Harlow 12¾pcBds. Red. 18/6/75. £6.5846
Hart 14½pcBds. Red. 31/12/75. 7¼pc.
Horsham 12¾pcBds. Red. 18/6/75. £6.5846
Kuala Selangor Rubber. 1.2796p
Lerwick 14½pcBds. Red. 31/12/75. 7¼pc.
Lichfield 14½pcBds. Red. 31/12/75. 7¼pc.
Lincoln 12¾pcBds. Red. 18/6/75. £6.5846
Luton 12¾pcBds. Red 18/6/75. £6.5846
Malvern Hills 14½pcBds. Red. 31/12/75. 7¼pc
Massmutual Mortgage and Realty Invst. 30 cts.
Mid Sussex 14½pcBds. Red. 31/12/75. 7¼pc.
Newport 14½pcBds. Red. 31/12/75. 7¼pc.
Norfolk 14½pcBds. Red. 31/12/75. 7¼pc.
North Tyneside 14½pcBds. Red. 31/12/75. 7¼pc.
Nottingham 12¾pcBds. Red. 31/12/75. £6.5846
Peebles 14½pcBds. Red. 31/12/75. 7¼pc.
Rochdale 14½pcBds. Red. 31/12/75. 7¼pc.
Scottish and Mercantile Inv. Ord. and A. 0.8375p
Shiloh Spinners. 0.886p
South Glamorgan 12¾pcBds. Red. 18/6/75. £6.5846
South Northamptonshire 12¾pcBds. Red. 18/6/75. £6.5846
Southampton 14½pcBds. Red. 31/12/75. 7¼pc.
Wandsworth 12¾pcBds. Red. 18/6/75. £6.5846
Watford 12¾pcBds. Red. 18/6/75. £6.5846
Wood (Arthur) (Longport). 0.66625p
Wrekin 12¾pcBds. Red. 18/6/75. £6.5846
Woodspring 12¾pcBds. Red. 18/6/75. £6.5846
Wycombe 12¾pcBds. Red. 18/6/75. £6.5846
Ynys Mon Isle of Anglesey 12¾pcBds. Red. 18/6/75. £6.5846

THURSDAY, JUNE 19

COMPANY MEETINGS—
Alginate. Charing Cross Hotel. W., 12
Burrell. Winchester House. 100 Old Broad St., E.C., 11.30
Compton (J.) and Webb. Quaglino's, Bury St., S.W., 12
Croda International, Connaught Rooms, W.C., 12
General Scottish Trust. Edinburgh, 11.30
Industrial and General Trust, 77 London Wall, 12.45
King and Shaxson, 52 Cornhill, E.C., 12
Lead Industries. 14 Gresham St., E.C., 12
Moorhouse and Brook, Huddersfield, 11.30
Pork Farms. Trent Bridge. Nottingham, 12
Porter Chadburn, Liverpool, 12.15
Sanderson Kayser. Sheffield 12
Sphere Investment Trust. London Wall Buildings. 12

BOARD MEETINGS—
Finals: Anderson Strathclyde. Brown (N.) Invests. Cullen's Stores. Hardman (Thomas). Haslemere Estates. Lyons (J.). Midland Cattle Products. Nineteen Twenty-Eight Invest. Tst. Northern Secs. Tst. Powell Duffryn. Weston Pharmaceuticals.
Interims: Berisford (S. and W.). Dobson Park Inds. Dundee and London Invest. Tst. English China Clays. United Spring and Steel

DIVIDEND & INTEREST PAYMENTS—
Clydebank 13⅛pcBds. Red 23/6/76. 6⁹⁄₁₆pc
Croda International, 0.98356p
Equity and Law Life Ass. Soc., 5.1p (1974)
London Trust Dfd., 5.25p
Malakoff Rubber Estates, 3p
Moorhouse and Brook. 2.969p
Nat. Bank of Australasia. 6.5 cts.
Royal Dutch Petroleum Shs. (Reg.), N.Fl.4.50
Safeguard Ind. Invs., 0.7p
Securities Trust of Scotland. 2.95p

FRIDAY JUNE 20

COMPANY MEETINGS—
Allied Leather. Grosvenor Victoria Hotel, S.W., 12.
Downs Surgical. Connaught Rooms. W.C., 2.30
Harmo Industries. Solihull. 3.
Hunting Associated Inds. Norwich House, 4, Dunraven St., W., 12.30
Perry (Harold) Motors. R.A.C., 89, Pall Mall. S.W., 12.
Roberts Adlard. Belgrave Square. 12.
Scottish Mortgage and Trust. Edinburgh 10.30
Tricentrol. Abercorn Rooms. Great Eastern Hotel. E.C., 12.
Walker (Alfred). Meriden. 12.
Wills (George). 25, City Road. E.C., 11.15

BOARD MEETINGS—
Finals:
Potters of Yorkshire
Dimplex Inds.
Incledon and Lamberts
Monk (A.)
Interims:
Finance and Ind Tst
[illegible] and Paint and Wallpaper
Raeburn Invest. Tst.
Turner Mnfg.

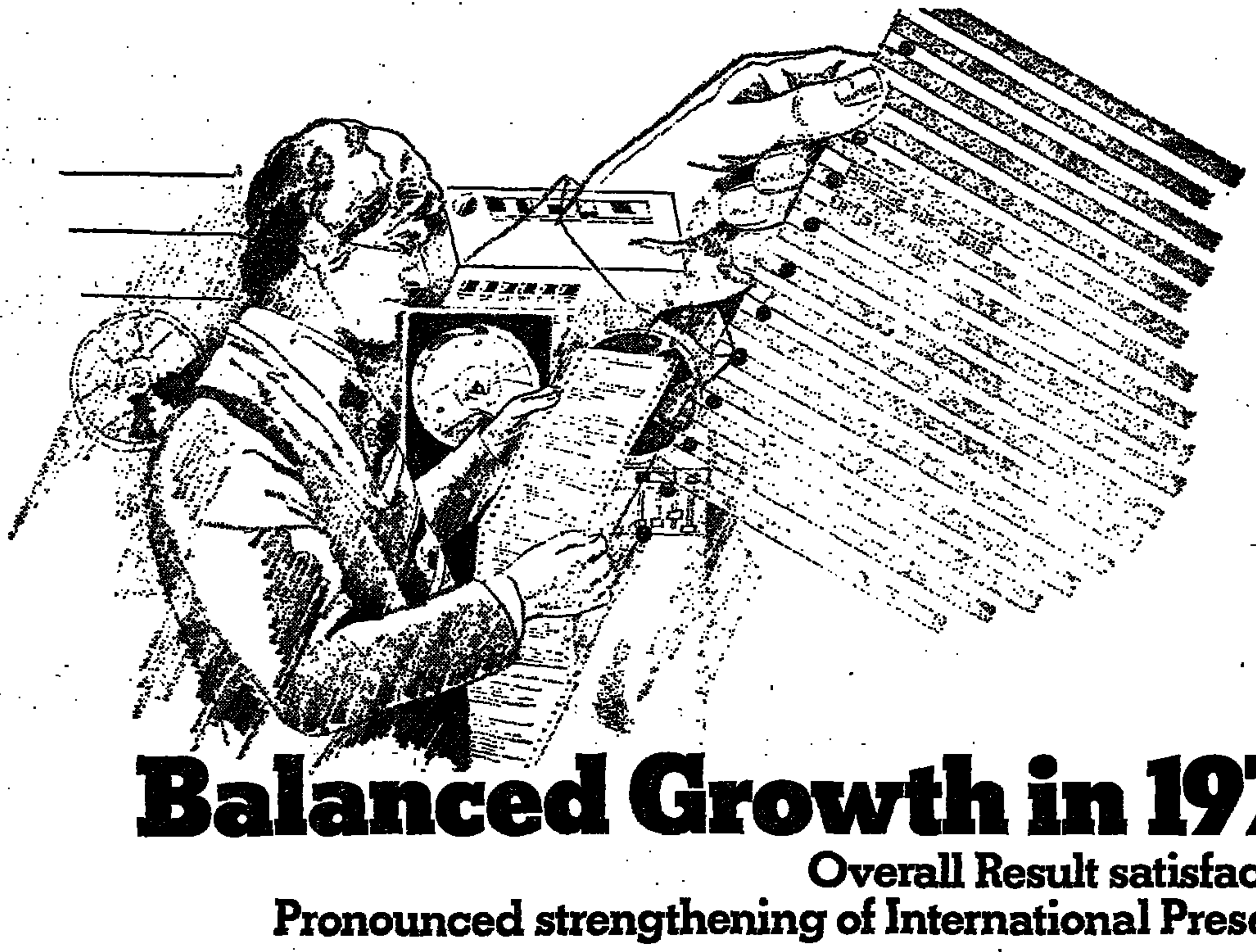
DIVIDENDS AND INTEREST PAYMENTS
Anglo Scottish Inv. Trst. 0.6125p
British Inds. and Gen. Inv. Trst. D'd., 1.05p
B[illegible] Printing Deb Stks. 3¼, 3½, 3¾, 4½pc
British Transport 4pc 1972-77. 2pc
Burrell, 0.4075p
City of Oxford Inv. Trst., 1.675p
Essex Water Deb. 1¼, 2, 2¼pc (1980-.11)
Farnell Elec., 2.0154p
Holyrood Rubber, 16.461p
Ind. and Gen. Trst. 0.72p
King and Shaxson. 2.1426p. Ptg.Pfd. 3.15p
Nathan (B. and I.), 1.75p
New Guinea Goldfields. 3.05cts.
Reyrolle Parsons. 3p
Scot. National Trst., 1.05p, 6pcPf., 2.1pc
Sphere Inv. Trst., 1.1p

SATURDAY JUNE 21

DIVIDEND AND INTEREST PAYMENTS
Bishopsgate Trst., 2.6p
Continental Union Trst., 1.35p
East Surrey Wtr. Ord. AStk. 7pc (fmly. 8pc) Max. 3.5pc. Ord. BStk. 4.9pc (fmly. 7pc) Max. 2.45pc. Ord. CStk. 3.5pc (fmly. 5pc) Max. 1.75pc. 3.5pc (fmly. 5pc) 1.75pc. 3.15pc (fmly. 4½pc) Rd.Pf. 1980-85. 1.575pc. 4.2pc (fmly. 6pc) Rd.Pf. 1985-90. 2.1pc. 4.55pc (fmly. 6½pc) Rd Pf. 1981-83. 2.275pc. 5.6pc (fmly. 8pc) Rd.Pf. 1992-94. 2.8pc

SUNDAY JUNE 22

DIVIDEND AND INTEREST PAYMENTS
Belfast 7⅛pcBds.Rd. 22.12.76. 3¹¹⁄₁₆pc
[illegible]ish Printing Ln. 3½, 4¼, 4½pc



Bankruptcies among Japanese companies reached a record total last year. **Dick Wilson** explains why

Japan: a boom landed on the rocks

ONE MORNING last October president Yoshihiro Miyata of Yashica, the camera maker, called his men's representatives together and told them: "Yashica's life is like a candle light before a storm. If things go at the present pace, the company will go bankrupt on October 31."

His story is no longer an uncommon one in Japan, where last year's bankruptcy cases totalled 11,681, counting only cases where the liabilities exceeded Y10m. ($33,000), with aggregate debts outstanding of $5.5bn.

This was double the previous record established in 1968, and gives a measure of the severity of the recession which Japan has been experiencing, as well as of the rationalization into which Japanese business has been forced.

The list of bankruptcies exceeding $10m. ran to 50, and the two companies at the top of the league owed more than $200m. and $100m. respectively.

The story of failures has continued into this year, the outstanding examples since January being Yaesu Tsusho (a car parts trader), Hokuriku Machinery (textile machinery), Okuda (umbrellas), Yamazaki Teikokudo (drug manufacturers) and Marubishi Shokuhin (canned fruits).

Peak

It appears that the peak may have passed in April, when the figure reached 930 cases involving debts of $370m., since this was lower not only than the previous month but also lower than the previous April.

The most vulnerable firms in this shake-down in Japanese business have been in construction and real estate, which between them account for 40 per cent. of the total. The textile mills, followed by electrical machinery and general machinery, have also done badly.

One factor which is apparent in many of the recent bankruptcies is speculation in land, which had been encouraged by the ambitious and unsuccessful proposals by the previous administration of Prime Minister Kakuei Tanaka for the remodelling of the Japanese archipelago. During the 1970s the boom in real estate provoked by this overreached itself, and some of the companies which ultimately collapsed were found to have unwisely dabbled in land. This was true of Tokyo Tokei Seizo, the watch and clock maker, as well as Yamato Woollen Textile and even Omi Brotherhood.

Omi Brotherhood created a stir because it had been endowing Christian mission and charity work in Japan from the sale of mentholatum, and its bankruptcy at the end of last year put a stop to much of the work which it had made possible. But good motives did not excuse bad management.

Promising

Even three of the promising small firms which had been helped by the Small Business Investments Company failed, casting a slight cloud on the methods of Japanese management. But at least it can be said that last year saw only four bankruptcies of companies listed on one of the Japanese Stock Exchanges. These were Nihon Netsugaku, Yamato Woollen, Tokyo Tokei and Sensei Seisakusho.

Almost all of these firms had gone through the progressions of collapse, beginning with the laying-off of labour, the cutting of salaries, the advancement of retirement, and other devices to cushion the crisis. With a traditional concern for labour relationships and lifetime employment, some firms in Japan have made temporary layoffs of labour on the basis of paying anything between 60 and 95 per cent. of full wages and retaining the contract intact against a hoped-for early resumption of work.

But in the end all too many enterprises have had to close down. It is interesting to see on what basis some manage to survive and others do not. The Government and the Industrial Bank of Japan would not allow Chisso to go bankrupt, because if it had done so the payment of compensation to the victims of the dreaded Minamata pollution disease would have been suspended and there would have been a political backlash. In most cases it is the creditors, particularly the banks, who decide which enterprise is to be baled out and which is to be left to die.

The Sanwa Bank saved Okuraya K.K. last year, but abandoned Nippon Kaihatsu. Both were real estate firms, and both could have been among the 916 cases of bankruptcy in real estate. Nippon Kaihatsu had bought a lot of land during the 1971-72 land boom, but then had to face the credit squeeze which followed the oil crisis at the end of 1973. Its president sought help from the Sanwa Bank, which pumped in $3.3m. during the period March to June 1974.

Mountainous

But the Bank then discovered that a considerable amount of the company's land was mountainous, and that a large number of its promissory notes was in circulation and had to be redeemed. Nippon Kaihatsu was declared bankrupt in July last year with debts of $86m.

Okuraya K.K. got different treatment. It stands among the larger real estate firms, and ranked third in terms of sales in 1973, with a total of $170m. But it found itself at the end of 1973 having borrowed $120m., and the Sanwa Bank was called in. In this case the land was developable, and besides that Okuraya was the largest real estate company under the Sanwa Bank aegis, with mutual links going back for at least five years. In these circumstances the bank sent in its own adviser to replace the founder-president of Okuraya to guide it back to recovery.

Selectivity

A similar selectivity has applied in the textile industry where the Tokai Bank has had the deciding voice, at least in the Nagoya region. The Tokai Bank has a "Textile Company Diagnosis Team" which had been very active in 1970 during the textile recession, when the bank's selected lending prompted some key mergers. Now the same team has been active again. Its former head, Teruji Ito, left the bank to become president of Aichi Spinning and successfully reconstructed it some five years ago. Now he has been made managing director of Hayashi Spinning in order to perform the same function. But Daishin Spinning and Tokai Rayon both closed last autumn under the pressure of the bank. Daishin turned itself into a real estate firm.

The banks are the dominant actors in the crucial decision to declare bankruptcy or not. In the current wave of business failures they appear to account for about half the total bad debts. During the 1965 recession they were owed only about one-fifth of the total, so that over the past decade the banks have increased their importance in terms of lending funds to industry and commerce.

JAPAN'S LARGEST BANKRUPTCIES IN 1974

	Liabilities in $ Million
Sakamoto Boseki (Osaka, spinner)	211
Nihon Netsugaku Kogyo (Osaka, air conditioning)	113
Nippon Kaihatsu (Tokyo, real estate)	86
Aeromaster (Asaka, air conditioning)	62
Irimaru Shoji (Nagoya, machine tools)	51
Orient (Tochigi, cabinetmaker)	49
Matsushita Kaihatsu (Osaka, real estate)	36
Sankyo Bussan (Kanagawa, real estate)	34
Vivasta Tosho (Tokyo, real estate)	34
Fudogumi (Saitama, construction)	34
Ryokufu Kogyo (Osaka, golf links)	31
Saeki Construction (Osaka, construction and real estate)	31
National Mahobin Kogyo (Osaka, Thermos)	29
Tokyo Tokei Seizo (Kanagawa, clocks)	29
Amijirushi Shokuhin (Tokyo, food manufacture)	24

Ratio

But the other creditors are also important. These are very often the trading houses or *shosha*—Mitsubishi, Mitsui, Sumitomo, C. Itoh and the rest. Last year the ratio of bad debts in the *shoshas'* lending usually ranged between 0.02 per cent. and 0.07 per cent. Only Toyo Menka departed from this range, with the astonishingly high ratio of 0.5 per cent., or ten times bigger than the others. This was because of the single bankruptcy of Sakamoto Spinning with liabilities of $32m.

The *shosha* have become more cautious of late, except perhaps for the example of Toyo Menka and Sakamoto Spinning. Ten years ago Sanyo Special Steel went bankrupt owing $47m. to no fewer than 10 trading houses. This collective blow led to a reorganisation among the *shosha*, and most have stiffened up their precautionary procedures in order to avoid such disasters.

These are the companies which have disappeared. What of the ones which hover on the brink of bankruptcy? "Every city bank now has about 10 borrowers on the border of bankruptcy," a bank executive in Tokyo remarked a few weeks ago. "We can't simply let them go under." Yashica, the camera maker, and Toyo Kogyo, the car manufacturer, are perhaps the two most dramatic cliff-hangers of recent months.

Toyo Kogyo saw its share of the domestic car market deteriorate from just over 8 per cent. three years ago to 6½ per cent. last year, and it was then sent reeling by the setback to its rotary engine project. By last October it had borrowed $960m. in the effort to keep going, and a quarter of this huge debt was owed to two Sumitomo banks.

Humiliation

At the beginning of this year the firm had to close some of its plants. But the Sumitomo Bank and Sumitomo Trust and Banking Company provided $50m. for Toyo Kogyo's April shortfall. Two highly respected businessmen, Mr. Shigeo Nagano (chairman of Nippon Steel and President of the Japan Chamber of Commerce and Industry) and Mr. Koji Asai, a director of the Sumitomo Bank, became advisers to Toyo Kogyo, which is now undergoing the humiliation of selling land and stocks and cutting salaries in the endeavour to remain afloat. It is generally believed that the Sumitomo banks feel that they have put too much money into the concern already to let it fail at this stage, quite apart from the appalling effects which this particular failure would have on employment.

President Miyata's emotional address to the Yashica union in October was precipitated by the decision of its two biggest stockholders, Taiyo Kobe Bank and Nissho-Iwai (one of the *shosha*) to discontinue their financial assistance. The workers at the main factory agreed to the shut-down proposals by the management, but the union at another plant, which the management planned to sell to Fujitsu, the computer manufacturer, under its reconstruction programme, refused to accept them.

Emergency

At the very last minute the bank and Nissho-Iwai changed their minds, sending a new president to take over Yashica's operations and pumping in emergency funds. Yashica had to face bills of $3.7m. during October and November, and a further $4.6m. in retirement pay for the 900 volunteers to leave the company's employment. Its borrowings reached a level of $33m., and the two creditors admitted how close a shave it was. "We were of two minds to the very last minute," commented Mr. Shinsaku Fujii, vice-president of the Taiyo Kobe Bank. "Not only was the company doing badly in the camera market but it had also been noted for its internal rivalries and for several scandals, including a high-level embezzlement. At one point, a year ago, Yashica's founder and former chairman, Mr. Yoshimasa Ushiyama, actually appealed to the Stock Exchange to intervene, accusing the current executives of window-dressing their reports.

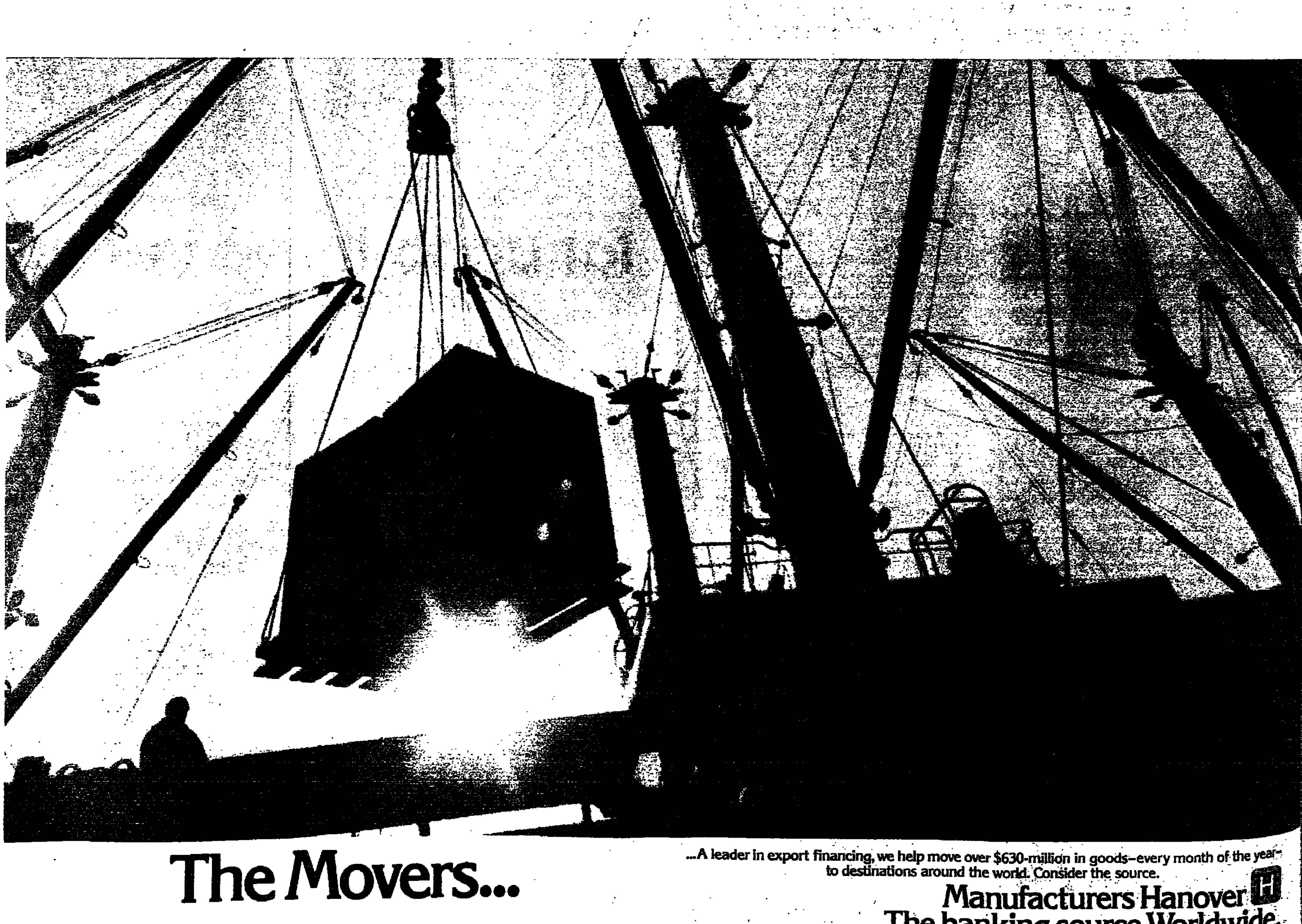
In the end it was probably the Government, through the Ministry of International Trade and Industry, which swayed the decision, apparently because of Yashica's tie-up with Carl Zeiss of West Germany. The Government did not relish the possible international repercussions of a bankruptcy in which foreign partners would inevitably be involved.

Recovery

Yashica thus survived, promising to "stop depending solely on cameras" and instead to diversify into other lines of optical and electronic goods, aiming to complete its business recovery two years from now.

The Japanese bankruptcy scene must appear confusing to any outsider. But one foreign banker has worked out a formula by which to judge whether a firm in trouble is heading for the rocks or not. Mr. William P. Bonds, of the Mitsubishi Bank of California, declares that if one of the leading "city" banks has at least 5 per cent. of a company's ownership and is responsible for at least 20 per cent. of the total loans outstanding, then that company will not go bankrupt. Only one case during the past 10 years among the major bankruptcies disproves his formula, namely, that of Nagoya Seito in 1971.

The tide has turned for the moment, and the number of bankruptcies in Japan is now likely to return to normal. But there are more to come, and British firms having business connections with any Japanese company that appears to be getting into trouble might do well to read Mr. Bonds' study and apply his formula.



The Executive's World : The Office

EDITED BY JAMES ENSOR

Lethargy in energy saving

BY JOHN TRAFFORD

IT IS NOW twenty months since the energy crisis hit the Western World yet there is still little sign of the British Government taking effective action to cut down the nation's fuel consumption, part of which goes to heating, ventilating and lighting offices.

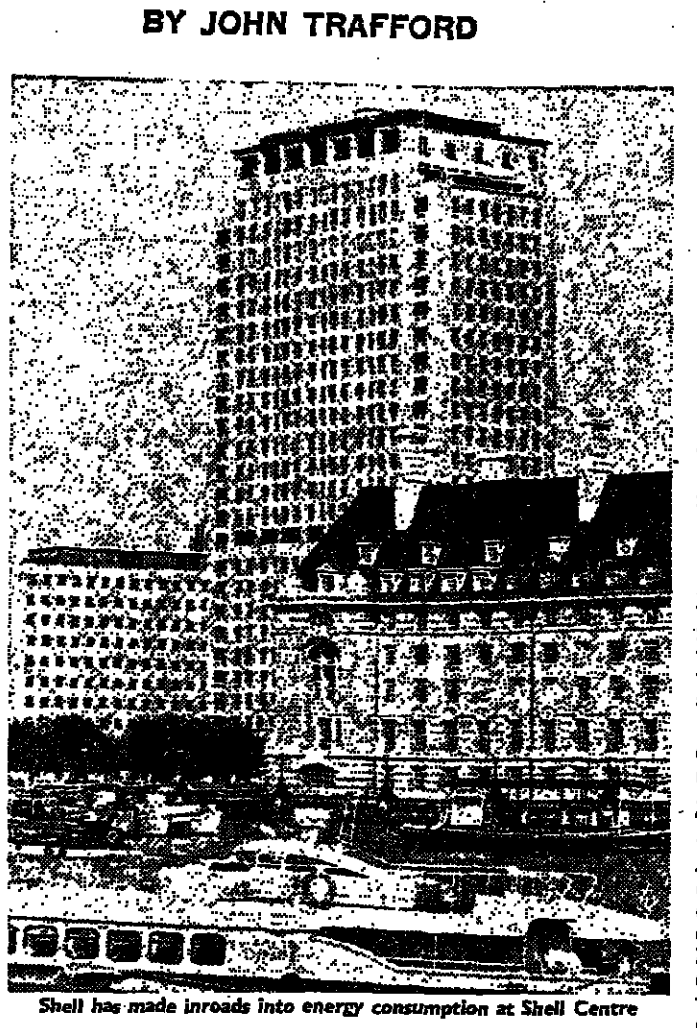
Britain is not just slow to react. It also starts its energy-saving compaign well behind the more advanced countries of Western Europe. At present the U.K. consumes nearly half the energy of the six original EEC countries whose population is 3½ times greater—a shocking performance born of years of cheap energy supplies and a hesitation to alter the building designs and building methods of the past.

The manager, faced with trying to hold down the rise in office overheads, can be excused for thinking that he has seen precious little reason to cut down his energy consumption other than the steep rise in energy prices themselves.

Most of the progress to date has been by individual companies which have not waited for a lead from Whitehall but have invested senior executive time in their own cost-cutting programme. The best publicised to date have been the efforts of Marks and Spencer. The company cut its energy consumption by 15 per cent. in 1974, a saving of £500,000. It started an in-company campaign with "Switch It Off" stickers and other means to make employees alive to the importance of saving energy; it re-examined heating and lighting levels in its stores; and it set up an Energy Conservation Team in every store and at head office with the responsibility of maintaining, and if possible increasing, the initial savings.

Other companies, among them Shell at Shell Centre in London, have made inroads into their office energy consumption. Some believe that it is best for each company to work out its own solution to the challenge of energy conservation. However attractive such sentiments may appear, they are clearly not shared by the Government or many other people whose job is directly affected by inefficient energy use.

So far, apart from a £1m. publicity campaign on energy saving launched in January and another which began just eight days ago, the Government has only taken two measures which could have a direct bearing on energy conservation — apart from the policy of allowing energy prices to rise.



Shell has made inroads into energy consumption at Shell Centre

One was the requirement to restrict office temperatures to a maximum temperature of 20 deg. C (68 deg. F), the other a modest £3m. low interest loan scheme to help companies with energy saving plans but insufficient resources to implement them.

The measures were announced by Mr. Varley, the then Secretary for Energy, last December as part of his £100m. a year energy savings package but few people believe them to be anything like enough. Various other activities are under way which may, or may not, yield results. The Think Tank produced a report on energy saving last July. An Advisory Council on Energy Conservation was announced in July and set up under the chairmanship of an academic, Professor Sir William Hawthorne, in October to advise Mr. Varley. Then, early this year, NEDO published a study on where people's power supplies come from and where they go. It concluded that business was capable of substantial savings in energy for a relatively small outlay.

Finally an Energy Resources Subcommittee of the House of Commons Select Committee on Science and Technology was set up under the chairmanship of Mr. Arthur Palmer (Labour, Bristol North East) to examine the use and conservation of energy.

With so much study and so little Government action to date, the professional involved in office design and office operations has some cause for feeling rather frustrated. That is certainly the feeling of Mr. Donald Jones, partner in property agents Weatherall Green and Smith and chairman of the Building Surveyors Divisional Council of the Royal Institution of Chartered Surveyors. He believes that regulation is probably the best way to get energy conservation in new buildings but is worried lest the Government thinks that this will make much of a dent on the nation's energy consumption.

For new buildings, tougher regulations are an obvious "must" because otherwise the developer will continue his traditional practice of skimping on energy-saving devices — more efficient lighting, re-use of warm air, double glazing, better wall and roof insulation — when building speculative offices and factories. "The developer builds to the minimum acceptable standards," says Mr. Jones, "because he is not the one who pays the electricity bill. Furthermore, he knows he cannot recover the cost of an additional energy-saving outlay with a sufficient increase in rent."

Here harsher regulations could have a useful impact but the same could not be said of existing buildings. Mr. Jones points out that there are just not the district surveyors and building inspectors around to make a thorough job of enforcement.

For existing buildings he would like to see the Government offering a series of financial carrots aimed at helping the company which invests in energy-saving equipment. His proposals include grants, tax allowances, subsidies on insulation materials, and an adjustment to the rating system so that energy-saving improvements do not increase the rateable value of the premises.

The first three suggestions could be applied either to developers or to occupiers, depending on who did the work. The second and fourth are pe haps particularly apt. Mr. Jones points out that a company can charge the whole of its energy bill against tax (as part of its regular running expenses) but has to treat the installation of insulation as a capital item, to be depreciated over a period of years. With local government expenditure nearly out of control, anything which shielded the office employer from higher rateable values would be very well received.

His fear, like that of many others anxious to cut the nation's fuel bill, is that suggestions of this kind will take so long to pass through the Whitehall and Westminster machinery that precious years will be wasted.

This is not to say that Mr. Jones expects all the initiative to come from the government. "Architects have a part to play, designing buildings with no more than the necessary area of glass so that heat losses and heat gains are not excessive. And large savings can be made by a more sophisticated control system so that unnecessary lighting, heating or ventilation is switched off."

In his view many an office manager lives in a world of false economies where every effort is made to cut capital spending to the bone even if it results in a large increase in annual running costs. The Government can play a big part in changing these attitudes but in the end the battle will be won or lost in the boardroom or the manager's office.

OFFICE PRODUCTS

Hoechst tackles Xerox and IBM

BY ROY LEVINE

"IF THE company can develop all three of its products successfully within the next five years, we would consider it to represent a model of what the ideal office equipment company of the late 1970s should look like."

The three products are a plain paper copier, an editing typewriter and a facsimile transmission device. The company is Savin Business Machines Corporation of the U.S. and the comment was made by a New York stockbroker.

On this side of the Atlantic Kalle Infotec, a mirror operation of Savin, has been set up by the German giant, Hoechst.

It is a wholly-owned subsidiary with operating headquarters in Wiesbaden and is essentially a marketing company.

This deliberate strategy, involving trading agreements with Savin in the U.S. and Ricoh in Japan, gives a small company the opportunity of making an enormous return on capital without becoming involved itself in the high costs of research and development and tooling for manufacture.

The danger of that approach in the long term is that the trading agreements are withdrawn or changed, leaving the company with an expensive sales team with no products to sell. Precautions also need to be taken that the R and D of the manufacturing firms are adequate to cope with the pace of obsolescence in each product area.

Hoechst has gone into the venture because it recognised the potential of the office equipment market and had the technology to compete with Xerox, the giant that dominates the world markets in one sector.

The three products that Savin and Hoechst have settled on are not related. But on a superficial analysis it is easy to see why it chose them. The other main growth sectors in the office equipment market can be eliminated for varying reasons—the dictating equipment market is too heavily penetrated; calculators has become too competitive; and computers require too much capital.

On the other hand the editing typewriter and facsimile transmission markets in Europe are still embryonic.

The plain paper copier market offers opportunities to Hoechst because of its experience in the photoconductor field.

The key to Hoechst technology is that it uses an organic photoconductive belt rather than an inorganic protoconductive drum as in Xerox equipment.

Mr. Ken Barge — Trevor Humphries

This technology is the foundation for the Kalle Infotec 1000 which is made in Japan by Ricoh and marketed in the U.S. by Savin. The trading agreement between the three corporations gives Kalle Infotec the exclusive right to market other office products made by Ricoh and Savin or its associates in the U.S. It benefits Ricoh by enlarging its production volume and allows Savin and Kalle Infotec to concentrate on marketing.

The research and development of the typewriter—priced at half IBM's before the introduction of the IBM Memory Typewriter —was done by Arthur D. Little under an agreement which gave Savin exclusive world-wide rights to manufacture, sell and sub-license in exchange for royalty payments.

Savin has contracted the manufacture of the machine to Hazeltine Corporation, which builds the machine around the IBM Selectric Typewriter. The main feature of the system is its buffer memory that allows the typist to edit the copy before it is recorded in the magnetic tape cassette. In Britain it is called the Kalle Infotec 7000.

Savin and Columbia Broadcasting System together own Rapifax which has developed a facsimile transmission machine, built by Ricoh, which can transmit a message in under one minute, thus opening a new market sector for high volume transmission. In the U.K., this is called the Kalle Infotec 6000.

Having one product in each of three markets leaves the company in a vulnerable position. To protect its position, there are plans to extend the product lines in editing typewriters and copiers.

Hoechst is continuing its R and D efforts and could bring to the market its own copier made at its new factory at Trier.

For the moment, though, efforts are being concentrated on establishing a market in five EEC countries — Germany, France, Holland, Italy and the U.K.

U.K. growth

Over the past two years Kalle Infotec has opened six branches in the U.K., employed some 500 people, mainly sales staff, and conducted an aggressive advertising campaign including television promotion.

"They have saturated the field with salesmen yet the markets are not yet ready for the hard sell—there is still an educational role to play before gaining grass roots acceptability," comments a rival.

Kalle Infotec admits it is in a hurry. Mr. Kenneth Barge, managing director, says, "We need to reach a certain volume of sales to recover the outlay before there is any question of obsolescence. Also, because our products are installed mainly on a rental basis, we need a base quickly to get into the black."

Mr. Barge is reluctant to state what resources Hoechst has put behind the effort. Equity capital is just under £2m. and there is a substantial but undisclosed amount of loans. The total investment in the U.K. could grow to £20m. by the end of 1977.

That seems a lot of money to support what the company hopes will be its gross income at the same date. Even so, the real pay-off could come in the ensuing years.

The management has some ambitious targets: a quarter of the total automatic typewriter market by 1977, a third of the facsimile market and one-tenth of the copier market.

It is obviously too early to judge the success of the company's marketing efforts and there are no objective figures to show its penetration.

Mr. Barge claims to have established an installed base in copiers of well over 1,000 machines in two years and to be second in new installations to Rank Xerox in a field of over 20. He is even bolder in his claims for the Kalle Infotec 7000 Text Editor which has been on the market for just under a year. "We are installing more units per month than anyone else," including, of course, the ubiquitous IBM, reckoned to have over 80 per cent. of the U.K. automatic typewriter market.

In facsimile transmission there is no modesty at all. Mr. Barge claims that since bringing the fast transmitter to the market last August over 100 machines have been installed and the rate of new installations is the fastest in the country.

The faster Infotec 6000 can give economies even though its rental prices starting at £95 per month are more than twice the average for competitive products. But in this Eldorado, Kalle Infotec could face resistance now that many of the six-minute facsimile machines are compatible between brand names.

Overall, unless Hoechst is prepared to throw unlimited resources into the market, it seems that Kalle Infotec's chances of becoming the "Third Force" in the office equipment market, after IBM and Xerox, are slim.

"Because of the sheer size of the technology and capital required, only the big companies will stay the race—in five years' time perhaps there will be only three or four companies left," says Mr. Barge. Will Kalle Infotec be one of them?

OFFICE IDEAS

JOB ENRICHMENT IN A CIVIL SERVICE SETTING

L. R. Gomez + S. J. Mussio in **Public Personnel Management** (USA), Jan./Feb. 75: p 49 (5½ pages, tables)

Describes the application of an experimental job enrichment programme to clerical workers in the selection division of the City of Minneapolis's personnel department; and reports increased job satisfaction and improved performance, but no significant change in absenteeism.

CATERING EQUIPMENT

A. Collins in **RIBA Journal** (UK), Feb. 75: 41 (5½ pages, illus., table)

A two-part article, the first describing equipment for the reception, storage, preparation and serving of food, and for the cleaning of dishes and utensils, the second looking at selection criteria.

THE SOUTH WESTERN ELECTRICITY BOARD OFFICES

J. Worthington in **The Architects' Journal** (UK), 12 Mar. 75: p 555 (9 pages, illus., charts, diags., tables)

Well-written and carefully researched, this is an assessment of one of the U.K.'s pioneer office buildings, now occupied for 3½ years. There's much that's out of the ordinary about this building: it was conceived when the chairman came back from the U.S. where he had seen the principle of heat recovery in action ("integrated environmental design" started here). Continental office landscaping was adopted but with a difference—no standards, no compulsion, leave it to the staff. How it worked out, what happened (including sabotage, though the word isn't used), satisfaction and grumbles now, even the fact that management now feel they themselves should have opted for the open floors.*

BUROLANDSCHAFT REVISITED

F. Duffy + C. Cave in **The Architects' Journal** (UK), 26 Mar. 75: p 666 (10 pages, illus., diags., table)

An appraisal of the impact the landscaping concept has had on attitudes to office environment. In retrospect, sees the pioneers' emphasis on the communications aspect as an over-simplification, and is (now) unhappy with the "the-bigger-the-better" approach; seems to share the fear that large spaces may become redundant when automation scales down office employment to "thinkers" only. Points to the connection between OL and egalitarianism—but believes this mellows once a building is occupied. Considers the stimulus OL has given to design, particularly furniture design. Believes we have come to the end of "simple landscaping" and to the beginning of a more complex period in office design.*

THREE OLDER OFFICE BUILDINGS

C. Cave in **The Architects' Journal** (UK), 19 Mar. 75: p 627 (6 pages, illus., diags.)

An assessment of three older office buildings: the Lever Brothers building, Port Sunlight (1895); the Norwich Union's Surrey House (1906), and Imperial Chemical House (1929) —the common denominator being continuous and continuing effective use of office space, due (in the author's opinion) to the initial design of the shell which permits a variety of space utilisation approaches.

OFFICE LANDSCAPING: TEN Qs AND As

H. Reznik in **Büro + EDV** (Fed. Rep. of Germany), Jubiläumsausgabe 74: p 16 (3½ pages, in German, English version available)

The author (who claims to have been involved, over 15 years, in more than 60 office planning exercises) answers questions put to him, such as: "Staff told to move into an office landscape are sceptical: does that attitude change with acclimatisation?"; "Who should continue to have a claim to a separate office?" and "Is landscaping dearer or cheaper than conventional offices?"*

ARE JOB DESCRIPTIONS REALLY NECESSARY?

D. E. Britton in **The Personnel Administrator** (USA), Jan 75: p 47 (2½ pages)

Argues that job descriptions are neither useful nor necessary in conducting job evaluation, performance evaluation, organisation analysis and control, or recruitment—in fact, they are of no real value to anyone. You may have a sneaking suspicion that he might be right.

A PERSONNEL EVALUATION TECHNIQUE

J. R. Searles in **The Personnel Administrators** (USA), Jan 75: p 50 (3 pages, table)

Describes a programme aimed at identifying and taking action on people at the top and bottom ends of the performance spectrum, and cites improved performances achieved by its use in Honeywell Information Services.

These summaries are condensed from the abstracting journals published by Anbar Management Services. Readers wishing to consult original texts should write to P.O. Box 23, Wembley HA9 8DJ (Telex 935779), or to the individual magazines.

The Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

● MACHINE TOOLS

EMI bid for a world market share

EMI-MEC, the machine tool subsidiary in the EMI group, is bidding for a large slice of the multi-million pound world market for large capacity camless automatic lathes with a completely new 50 mm. (2 inch) bar capacity machine.

Auto Sprint Series S, contains facilities not previously available on a single spindle machine, together with an improved version of the company's plug-board system.

Series S has a low-profile format offering robustness, rigidity and all-round accessibility. Among its facilities are several original features—some patented—which contribute to an extremely versatile design. It incorporates a self-compensating collet mechanism allowing a 0.75 mm. (0.030 inch) variation in the size of bar stock without collet adjustment; completely automatic random-selection of turret position and independently operating cross slides with longitudinal traversing on the front slide. Copying is also possible using an optional copying unit in conjunction with the front slide traverse facility. Other features include two independent vertical slides; a 7½ hp three-speed motor driving through a gearbox with pick-off gears, giving 24 spindle speeds in four ranges from 50 rpm to 2,560 rpm of which any one range of six speeds can be used in a given program.

Modular construction simplifies manufacture and maintenance. The machine also has a simplified technique of programming which is immediately interchangeable with existing EMI-MEC programming systems.

This is its first move into the large capacity auto lathe market with a machine completely to the company's own specification by EMI-MEC which now has more than 10,000 systems of plug board sequential control in the field.

Because of the number of machines already in existence and problem of retraining operators, this machine retains the standard plugboard control system but allows for the latest programming technique to be used. Certain logic functions like feed bar to stop and copying have been built into the program and can be selected by the use of a single diode pin. All the separate major functions of the machine have been placed on individual printed circuit boards. The individual slides have an automatic retract facility further to simplify setting and programming.

A self-compensatory collet allows for variation in bar size of up to 0.030 inch (0.75 mm) once the collet has been primarily adjusted. It provides significant operating economy by eliminating the need for frequent adjustment and allows the setter to operate with much wider tolerances in bar size.

Six stations

Any one of the six stations of the turret can be directly selected at random, avoiding indexing the turret sequentially to the required position. This auto-selecting capability, which allows substantial time-saving and great flexibility in tool setting, is a considerable advance over conventional skip indexing, and also is of particular benefit when copying. In addition, the auto-selecting turret enables movement of the turret to be interlocked with the turret station selector so that the turret will not proceed until the correct station has been located. Each turret station has its own feed control needle valve which is automatically selected. The usual EMI-MEC features such as woodpecker feed are also included.

In place of waterproof switches, which experience has shown to be susceptible to troubles, all the rapid check settings on the machine are activated by electronic sensors which have no contact between the moving dolly and the "switch." This also enables the settings to be made manually by sliding rack trips, obviating the use of keys or spanners and further reducing machine set-up time.

Slides for this machine require high pressures, particularly since the complications of a mechanical drive to the turret have been abandoned. Operation with air pressures alone would require very large power units and very great air consumption. To overcome this the developers designed a new system to give high economy of air and still maintain the necessary high thrust to the slides. It is achieved by advancing the slide to its rapid check position with a small air cylinder at which point the pneumatic/hydraulic intensifier takes over and supplies a high pressure for the working stroke. This avoids the necessity for the sophisticated circuitry which would otherwise be required in hydraulic machines. Typical air consumption for a theoretical program using all slides on an average workpiece would be 5¼ cu. ft. per minute giving a theoretical thrust of 1,700 lbs for the cross slides and 3,000 lbs for the turret.

EMI, 135 Blyth Road, Hayes, Middx. (01-573 3888).

● OFFICE EQUIPMENT

Binds books easily in the office

ACCORDING TO Business Aids, 3, Whitby Avenue, London NW10 7SQ (01-965 9821) it takes about 11 seconds to "produce a professionally bound book" using the Bindmaster.

The machine will take any thicknes of papers and securely bind them in a wrap-around cover, in permanent book form to professional standards. Alternatively the pages can be edge-bound only. The books open flat, and stay open flat says the company. No accessories are needed such as drills, punches, plastic strips or metal tags.

Binding length is up to 17½ inches (covering A4, foolscap, and computer print-out sizes) so that the machine should be suitable for sales reports, manuals, catalogues, records, bulletins and legal papers.

An adhesive thickness control and numerical counter enables the glue volume to be adjusted to match the spine of the papers being bound. Glue coating is automatic, and there is a thermostatically controlled heating system that quickly brings the adhesive to the correct operating temperature and then switches on the coating drum.

Interlocking prevents use of the machine before the correct temperature has been reached.

● PROCESSING

Cleans up cutting oil with ozone

OILS AND their emulsions used for lubricating and cutting are prone to become contaminated with micro-organisms. After a time, particularly in warm weather, the fluids can begin to ferment producing a disturbing, penetrating smell and causing health problems including skin and eye complaints.

Recently made available in the U.K. from the Swiss firm Ozone Blatter and Co. is a cleaning technique in which air containing ozone derived from an ozoniser is directly injected into the emulsion. About 10 grammes/200 litres of fluid/day has been found sufficient to prevent decomposition. It is also possible to regenerate cutting oils that are already heavily contaminated.

According to the company a "spectacular" increase in the life of emulsions can be obtained, saving up to seven fluid changes that would otherwise have to be carried out.

A typical installation would consist of filtration to remove metallic particles in suspension, ozone generator using high tension electrodes and compressed air/ozone mixing and injection. More from the U.K. agents Simonius Vischer and Co., 98 London Wool Exchange, London E1 6EP (01-247 1691).

● SAFETY

Cable can give fire alarm

HEAT SENSITIVE cable used by the company for protective devices in its electric blankets for years has been adapted by Monogram Electric for use in a fire alarm system called Alarmline.

Main advantages of the system are that it is simple to install, consisting from the detector standpoint of no more than a length of 3 mm diameter coaxial cable, and that it offers continuous "linear" detection along the cable length, there being no point detectors.

The idea of using Monogram's product in this way seems to have originated at the CEGB's research laboratories at Leatherhead, and the company has now formed a fire detection division to market complete systems.

Detection consists of monitoring increases of leakage current in the cable, which has outer and inner conductors separated by a dielectric that reduces in resistance with increasing temperature. Currents flowing are in the hundreds of microamps region, so that the system itself has good intrinsic safety. Response time meets the requirements of BS 3116 for class 2 specification.

The system control unit can accommodate up to ten detector cables each of 100 metres in length. Threshold detectors detect the line current changes and actuate appropriate relays, and delay can be provided between detection and automatic extinguishing actuation, some 60 to 80 seconds, to allow for building evacuation.

When the heat source is removed, the system re-sets after about one minute. Full test facilities are built in.

A likely application for Alarmline is in protection of cable ducts: the physically extended nature of the area to be protected makes it ideal, which accounts for CEGB's interest.

Other lengthy, narrow protected areas will also be exploited including warehouses and ship-borne ducting, and all kinds of cable ducting in buildings including telephone exchanges and hospitals. The company is at Hythe, Southampton SO4 6YE (0703 843471).

Less risk of a mix-up

IN A MOVE that cannot be received other than with approval, Lever Industrial is introducing a colour coding system for its Titan detergents used in the food industry.

One of the main reasons for this move is that many detergents are white powders or colourless liquids and since many foodstuffs are similar in colour and form there is a risk of contamination.

Again, apart from possible confusion between foodstuffs and detergents, it is also necessary to distinguish between detergents which are alkaline or acidic, and so have to be handled carefully, and those which are neutral or slightly alkaline or acidic.

The colours chosen are red for those products which must be used with caution, green for those which are safe for hand use and blue for products which contain a bactericidal agent.

Lever said last week that it reckoned it was the first company in Europe to produce a fully operative colour coding scheme for detergents used in the food industry and it would like to see it applied nationally. It would be willing to discuss a national colour coding system with rival companies and would pass on technical information. It would not, however, be prepared to name the pigments used.

The company's links with the food industry through its associated compaines like Birds Eye, Walls and Batchelors gave impetus to the research effort which started 2½ years ago.

Buyers of Lever's food industry detergents will be pleased to know that there will be no price increase and their questions will be answered from the company's offices at Wood Street, Bebington, Wirral, Merseyside L62 4XN (051 645 2000).

● DATA PROCESSING

Powerful data entry system

A MORE versatile and larger capacity version of the Key-Edit 50 key-to-disc data entry system has been announced by ICL. It has been called 8959, and at the same time Key-Edit 50 itself has been re-named 8950.

The 8959, which is made in Canada by Consolidated Computers Inc., has a new processor with 32k words of store core, disc capacity up to 5.6m. characters and the ability to handle up to 16 key stations of a new design.

ICL states that the new key station has a better mean time between failures than its predecessor. Up to 24 of them may be connected in a switched back-up mode, and hard wiring to 1850 metres is possible.

The peripheral options include up to four magnetic tape drives, fast line printers, a matrix printer and fast data communications to other 8900 series processors and to ICL and IBM mainframe computers.

Software employed is extremely powerful and according to the company brings real computing power and data processing ability to the data entry field. Input programs handle virtually unlimited numbers of record format types. Data being entered is processed using Input Editor language: check digit routines, arithmetic facilities, operator prompting routines and the ability to handle user-written sub-routines are featured.

Facilities offered by the output language include additional registers and improved commands providing varied data manipulation. Arithmetic functions, multi-file handling, sub-routines, new data communications facilities and a fast sort-merge routine are provided.

Tyre plant production computer

ONE OF Europe's largest tyre factories, Fort Dunlop, has installed a General Automation SPC-16 machine aimed mainly at avoiding costly downtime on the many production machines and presses involved. In addition Dunlop expects to achieve improvements in stock control, product quality and management information.

The machine, which includes a 24k SPC-16/45 central processor, five megabyte disc store, magnetic tape and paper tape peripherals, receives data from some 72 production machine status terminals located throughout the plant.

Statistical and alarm information is provided for the appropriate foreman and supervisory staff via teletypewriters and visual display units. The system also controls a radio paging device which "bleeps" to warn supervisors of alarm messages sent from work stations.

Operators use the machine status terminals to alert their foremen of impending shortages of raw materials or components, or when a machine malfunction is restricting their normal production rate. They can also use it for more complicated checking of production schedules.

Program to save power

A POWER management computer program for use on IBM's System/7 has been introduced by the corporation and is designed to reduce peak demand for electrical power in industrial premises.

Electrical consumption on each meter is continually monitored by the system which responds with controlling action when the rate of consumption exceeds a targeted rate related to peak demand. This target can be changed automatically on the basis of usage trends, time of day or combinations of such factors.

Control includes stopping operation of selected devices for predetermined periods and shut-down time can be automatically varied if the maximum target is exceeded.

Even if the rate of consumption does not exceed the maximum targeted rate the system can dynamically adjust the targets to minimise overall consumption. Savings may also be achieved through start up and shutdown at specified times of all equipment which consumes electricity.

The program is written in APG/7 and is available at a monthly licence charge of £90.00. Charges are waived after 24 consecutive monthly payments.

● MATERIALS

Tape has improved response

HIGH FREQUENCY response is claimed to be improved some 9 dB over standard iron oxide cassettes due to a new coating formulation used in Scotch New High Energy cassettes just announced by 3M.

The material is described as a completely new gamma ferric oxide as opposed to the cobalt coating used in the company's previous high energy product.

Uniformity and size of the needle-like crystals is very accurately controlled during the manufacturing process and this, together with binder improvements has enabled a high density coating to be produced with optimum surface finish; resulting in better response.

With the new product the company is continuing its policy of special back-coating for smooth winding and ultrasonic assembly of the cases under clean room conditions, giving virtually stress-free construction. The result, says 3M, has been cassettes highly resistant to jamming under normal play or re-wind conditions. 3M is at 380 Harrow Road, London W9 2HU (01-286 6044).

● PRINTING

Fast Arabic setting

APPLICABLE TO a number of Linotype-Paul phototypesetting machines is a computer program that allows traditional Arabic to be set much more easily.

The operator is relieved of all the decisions concerning the selection of character variations, the placing of calligraphic joining strokes for line justification, the positioning of diacritical signs and the use of logotypes.

The company's Linoscreen unit is used for correction purposes: a punched tape from the keyboard is fed in and the Arabic matter is shown on the crt. A keybank on the Linoscreen is used for correction and a new tape produced for the phototypesetter. The company is at Kingsbury Road, London NW9 8UT (01-205 9778).

● POWER

Sorts one cable from another

ONE OF a number of identical cables running side by side can be distinguished from the others at any point along its length using the T31/1 cable selection set introduced by Wandel and Goltermann, 40 High Street, Acton, London W3 (01-992 8281).

Operation involves feeding the cable in question at one end with dc current pulses and examining each cable at the desired location with an independent, portable battery-operated detector.

A mains-operated pulse generator provides either two or six second pulses every three and seven seconds respectively depending on the application. The pulse voltage is 26 volts and the current is adjustable to 3 amps. The unit weighs 7½ lbs.

The detector uses an inductive probe and shows a meter reading only if the right cable is tested. If a neighbouring cable is probed a reduced signal of opposite polarity is induced. The detector unit weighs only 4 lbs. The system is made by HDW of Kiel, West Germany.

● PRODUCTS

Small vane compressor

A COMPACT, reliable, efficient and quiet running source of compressed air that will fit into the boot of a car has been launched by Hydrovane.

The company claims the unit breaks new ground by integrating the electric drive motor (1 kW single phase) with the compressor end-on a common drive shaft. As a result the set measures only 550 mm. long and weighs 53.5 kg. It can deliver 142 litres/min. (5 cfm) of cool clean air at 7 bar (100 psi).

The air is cooled while being compressed by injection of oil using the pressure of delivered air for oil circulation. The oil cools, seals all internal clearances and gives good lubrication with volumetric efficiency up to 90 per cent.

Designated 6 PUM, the vane compressor has a ceramic filter which results in oil carryover of no more than 12 parts per million by weight. No air receiver is needed, and the unit can operate from any 13 A ring main power point. More from Hydrovane Compressor Company, Claybrook Drive, Deddrtch, Worcs. (07392 25522).

CONTRACTS & TENDERS

Building and Civil Engineering

John Laing looks ahead

MUCH GREATER involvement in overseas activities by John Laing can be expected following to-day's announcement that the Group has set up a new subsidiary company to be known as John Laing International.

As just announced in its annual report the Group's turnover in 1974 was £246m. and the overseas share of this was 16 per cent. This year, overseas turnover is expected to be well over 20 per cent. of the total for 1975.

With prospects not so bright at home, but glittering opportunities manifest overseas, especially in the Middle East, Laing is pinning great hopes on the new company which will have the Group's chief executive, Mr. G. F. Parsons as chairman, with Mr. J. W. Charnley as deputy chairman and Mr. J. M. Watt as managing director.

John Laing International makes its debut with some big jobs in hand and much bigger ones looming up.

Laing is already very much occupied in Spain and can now be included among the largest in the construction business in that country. One of its latest ventures there is its involvement in the toll motorway concession in which it is a partner.

Now it is about to start work on a substantial part of the contract for the road which will run for 160 km. from Malzaga, near Bilbao to Burgos. Laing's Spanish company now has a Spanish president and there are also Spaniards on the Board.

Mr. Parsons told me that Laing was looking at the prospects for a plant hire operation in Europe. Through John Laing Construction the Group was also ready to consider joint ventures in other appropriate fields both in Europe and elsewhere.

Opportunities are also being sought in Nigeria and in some areas of South America but the real excitement is still in the Middle East where, for example, in Iran, Laing and George Wimpey are in a joint company with the Crown Agents known as Millbank Technical Services and Ordnance and concerned with the design and feasibility studies for an industrial complex at Esfahan.

It is believed the value of the construction work for Laing and Wimpey, which will follow, is around the £400m. mark.

Less successful has been progress on what must be the world's largest housing scheme—100,000 houses for Saudi Arabia which was extensively advertised in the British Press. Laing, no doubt like other big contractors, did a tremendous amount of research and work on a presentation.

However, hope has not been abandoned—patience is a very necessary requirement when dealing with Middle East affairs.

Both Mr. Parsons and Mr. Charnley are agreed that "everything in the Middle East is getting bigger and bigger." Perhaps the biggest of them all is the plan for a complete railway system in Iran running for about 1,000 kilometres from Tehran to Tabriz. Everything will be needed from the track to rolling stock and stations.

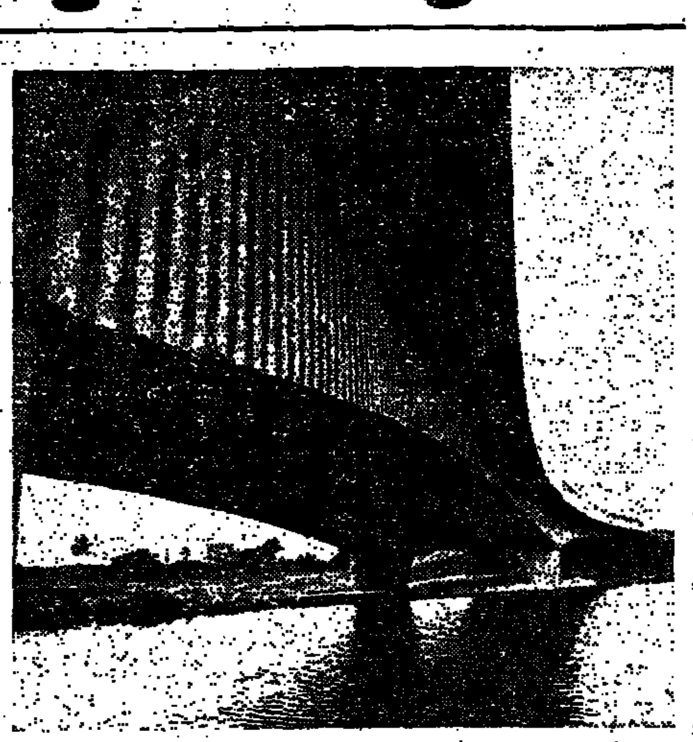
Little has been said about this £1,000m. project which could involve many British companies. The General Electric Company, for instance, is believed to be very interested, as it will be an electric system. GEC, which in the past has been very much involved in railway work is, however, very coy about this and is not willing to comment.

With such vast undertakings on the horizon, joint ventures are the obvious methods of "getting in" and as has already been indicated Laing is not averse to listening to any such proposals. Indeed, Laing and George Wimpey, which has been working in Saudi Arabia in a joint venture with Haji Abdullah Alireza for some years, have now set up a Saudi company.

Thus confidence is established. Mr. Charnley told me: "We prefer to adopt a policy of looking carefully at a country and then stay there permanently, rather than just have a foot in it."

It was found also that foreign governments liked to feel that the British Government supported U.K. companies — they looked for a "fall back" position and liked to know the U.K. Government would see that the work was carried out. This is a message both Government and industry in this country should read.

ARTHUR BENNETT



This bridge over the River Great Ouse has been commended under the Concrete Society Awards scheme. It was built by Holland, Hannen & Cubitts and is one of two bridges which were included in a £1m. road contract for the Borough of Bedford. The judging panel considered that this bridge merited a commendation, not only due to the successful use of concrete in blending with the landscape, but also in its fluted finish and alignment.

Oil platform floated out

THE FIRST stage of the £35m. concrete oil production platform being built by Andoc for Shell Exploration and Production has been floated out of its construction site on the Maasvlakte, near Rotterdam.

Five tugs towed out the partially complete 9 metre caisson weighing 70,000 tons after the dock in which it had been constructed had been gradually flooded over a three-day period and the earth wall between the dry site and the Beerkanal had been removed by dredging.

Draught reduction of the structure which has an area of one hectare and will eventually weigh 250,000 tons was achieved by using an air cushion.

Since May last year, massive concrete pours have taken place on the site—part of the Europort area of reclaimed land—to form 81 cells which make up the caisson and will provide storage for 1m. barrels of oil when the platform is positioned at its drilling location in the Dunlin field north east of the Shetland Islands.

During the next 12 months, the caisson will be completed by slip forming to a height of 32 metres and roofed. This second phase of work will also include the construction of four slip-formed concrete towers which will take the total height of the structure to 144 metres.

It will then be towed to a deep water site where the third stage of construction will take it to its full height of 237 metres. This will involve the addition of steel columns, deck and modules ready for the platform to be taken to its final position in the North Sea.

The Andoc consortium includes Balfour Beatty, Bos Kalis Westminster Group NV, Hollandsche Beton Groep NV, Koninklijke Adriaan Volker Groep BV, Leonard Fairclough, NV. Stevin Groep, and Tarmac Construction.

Mining and railways contracts

THE Cementation Company (Australia) has been awarded a contract worth $A3.1m. for the construction of a 1,500 metre long drift at a new coal mine at Tahmoor, NSW. The drift will be 4.2 metres wide and 4.2 metres high.

The work is being carried out for Clinton's Transport, a subsidiary of Clutha Development. Work will start in August and take about two years to complete.

Cementation (Africa Contracts) (Pty.) has won the contract to erect station buildings, platforms, signal cabins and other premises on the new Vryheid-Richard's Bay railway. There will be 21 stations and halts along the 160 km. line which is expected to open next April.

The contract is one of four awarded to Cementation by South African Railways totalling R3½m. The others are for two goods depots and installation of a stormwater drainage system at one of the goods depots.

Freight carried on the new line will include 3.5m. tons of coal annually from the Transvaal coalfields.

Orders roll in for Shepherd

CONTRACTS in the Midlands, worth more than £9m. have been secured from government departments and local authorities by the Midlands region of Shepherd Construction.

The largest contract, worth more than £2.75m. has been placed by the East Midlands Gas Board for a service centre at Leicester. Part of the site for the new centre includes the disused gas works in Leicester, which has been demolished.

A second contract, worth £2.25m. is for 301 dwellings at Beaumont Leys, Leicester. Contracts have also been received from the Department of the Environment for a driving school at Cardington (£670,000), from the Oxford Regional Hospital Board for health centres at Woughton on the Green and Wolverton, totalling over £1m. and from the Steeplechase Company (Cheltenham) for the erection of a dining room and kitchen block at Cheltenham Racecourse (£286,000).

The remaining contracts include a shopping unit at Wolverton (£254,000), an extension to the science department at the Bedford School (£254,000), phase 2 of the Wootton Hall police headquarters (£500,000) and the Kettering Latimer Secondary School (£642,850).

Tarmac to build £3m. factory

TARMAC Construction has been awarded two contracts with a combined value of almost £3m. by Devro (Johnson and Johnson Group) for a re-generated collagen sausage skin factory.

The company's industrial division has won the contract to build the factory and office complex at Bellshill, Lanarkshire, while its mechanical and electrical services group has been awarded a £1.5m. contract to design, procure and erect the plant and services for the factory.

The 66-week building contract, worth nearly £1.4m., will involve the construction of a steel-framed single-storey building with an in-situ concrete mezzanine floor giving a gross floor area of 9,600 square metres. Two of the perimeter walls will be of temporary construction to provide for future expansion.

Watches for movement in concrete

A NON-CONTACT device for measuring deformation in concrete beams and lintels, developed by Diffracto of Ontario might find application in the strain monitoring of structures using high alumina and other quick drying cements.

One part of the system is mounted on the member to be measured. It consists of two straight bars in the same straight line each fixed at one end, parallel to the surface of the concrete and just clear of it, so that the other ends are spaced apart by a small, prescribed amount. The ends are rag-bolted or similarly secured. The gauge itself is under no strain.

Changes in the gap due to strain are measured by the second part of the unit—a laser beam. This is projected through the gap to produce a diffraction pattern on a vertical surface the other side. Although the gap changes are small, they produce large variations in the diffraction pattern, interpreted to give gap change data.

In one version the pattern is recorded on film and in another the camera is replaced by a photocell which can give an immediate on-site result. More from the distributors, Survey and General Instrument Co., Fircroft Way, Edenbridge, Kent (073271 4111).

Extensions by Wiltshier

REFURBISHING and extension of offices in Eastcheap, London, for Commercial Union is to be carried out by Wiltshier Construction at a cost of £215,925.

The company is also to extend the telephone exchange at Kingston-upon-Thames, Surrey, for the Property Services Agency. This contract is worth £266,295.

Wiltshier has nearly completed a £1.3m. computer centre at Whyteleafe, Surrey, for Commercial Union.

Lining the sewers of Singapore

McCONNELL DOWELL South East Asia PTE of Singapore has placed an order with Charcon Composites of Middleton-by Wirksworth, Derbyshire, for glass reinforced cement sewer linings for the Bukit Timah Sewer Contract 3, Singapore.

McConnell Dowell is the general contractor for this project which involves the construction of a sewer 2 metres in diameter and some 1,000 metres in length.

This is the first major order for Charcon Composites' new Wirksworth factory since it was completed last month. The company declined to disclose the value of the order.

Charcon Composites is a member of Charcon, the construction industry subsidiary of the Charterhouse Group.

Fitting out a big Co-op store

A CONTRACT, worth £1m., has been awarded to Sir Robert McAlpine and Sons by the London Co-operative Society for finishing and fitting out work in a commercial development currently under construction for St. Martins Property Corporation in King Street, Hammersmith, London.

Comprising a basement, ground and first floor, the new fully air-conditioned store will have a gross floor area of 7,069 square metres. It will include loading bay, warehouse, food preparation and storage facilities as well as a kitchen and cafeteria.

The new Co-op store will be at the heart of a development which, by late 1977, will consist of almost 100,000 square metres of shops, supermarkets, offices, multi-storey car park and residential accommodation.

Architects are Ronald Wylde and Associates.

Strengthens and keeps water out

CONCRETE AND mortar can be waterproofed and their tensile strength increased by up to 50 per cent. using a two-part water-based epoxy resin just put on the market by Unibond, Tuscam Way, Camberley, Surrey (0276 63135).

The resin is claimed to be particularly suitable for patching and re-surfacing damaged or damp concrete floors. A 3mm to 6mm screed containing 1 kg of resin for every 3 kg of sand and 1 kg of Portland cement it is claimed will be completely impervious to rising damp, to spillages of water and to most aqueous chemicals.

The screed will also withstand heavy traffic. Prepared with a minimum amount of water it will develop a compressive strength of 35 N/sq mm, a flexural strength of 12.6 N/sq. mm. and a tensile strength of 5.6 N/sq. mm.

Used in the construction of new floors the resin enables thinner but nevertheless stronger concrete oversites and screeds to be cast. It can also be used to produce waterproof and exceptionally strong grouts.

Tunnelling machine licence

THE NATIONAL Research Development Corporation has granted a licence to Elgood Mayo Corporation of New York and Lancaster, Pa., for the manufacture of bentonite tunnelling machines, covering the markets in North and South America.

NRDC has already licensed Edmund Nuttall and Robert L. Priestly in the U.K. to cover the markets in Western Europe, Turkey, Israel and New Zealand.

The bentonite tunnelling machine, invented by Mott, Hay and Anderson, is a shield designed to excavate mechanically through difficult granular materials, particularly sands, silts and gravels. The face is supported by bentonite slurry, under pressure, in a chamber at the front of the shield within which cutters rotate, excavating the ground.

First use of this British invention took place on a trial section for the London Underground Fleet Line at New Cross, in South East London, in 1971/72, the work being financed by NRDC and the London Transport Executive.

Edmund Nuttall is currently using a similar machine to drive a 9 foot 5 inches outside diameter (2.87 metre) sewer tunnel in the North West of England for the Warrington New Town Development Corporation under a contract worth over £1m.

£1m. worth of jobs for Mears

TWO CONTRACTS, totalling over £1m., have been won by Mears Construction.

In Haverfordwest, the company is to erect five residential blocks for hospital staff for the Welsh Health and Technical Services Organisation at a cost of £573,687. The work is scheduled for completion in September next year.

The other contract, worth £560,889, is for 77 houses and flats at Westwood Road, Salisbury, Wilts., for Salisbury District Council. This job is due to be completed in November, 1976.

Effects of rain on masonry

RESEARCH to determine the resistance of various types of brick masonry to rain penetration is to be sponsored by the Mortar Producers Association.

The research programme will be carried out by the department of construction technology at Birmingham Polytechnic and several test walls will be built from Fletton and calcium silicate bricks, using cement, lime and sand, aerated cement and sand and masonry cement and sand mortars.

The walls will be placed in a test chamber and subjected to simulated heavy rain. Continuous measurements will be made of the amount of water penetrating into the walls during the tests.

Performance of the walls will be compared with that of two "control" walls bonded with waterproof epoxy mortar.

Water penetration in brickwork usually occurs at the interface between the bricks and the mortar courses, rather than through the bricks themselves or the mortar itself. The research programme will determine which mortars form the most watertight interfaces.

It is expected that the tests will be completed by the end of the year and a report published shortly afterwards.

Housing in Darlington

HOMES FOR nearly 1,000 people are to be built at Red Hall, Darlington by George Wimpey under a £2.3m. contract awarded by Darlington Borough Council.

A total of 220 dwellings will be constructed in Wimpey's No-Fines concrete technique and will include bungalows, flats and houses in one, two and three storey blocks.

The contract, on which work has now commenced, includes roads and sewers and is due for completion in February 1977.

THE FINANCIAL TIMES (Established 1888)
Incorporating THE FINANCIAL NEWS (Established 1884)
Head Office Editorial & Advertisement Offices:
BRACKEN HOUSE, CANNON STREET, LONDON, EC4P 4BY.
Telephone Day & Night: 01-248 8000. Telegrams: Finantimo, London
Telex: 886341/2, 883897
[illegible]
MONDAY, JUNE 16, 1975

Sterling and money rates

THE May trade figures have slightly reduced the pressures for an emergency anti-inflationary package. But the breathing space may not be a long one. The improvement in the trade position largely reflects the domestic recession, which has been severer than most economic forecasters, including the official ones, predicted. Nothing has yet happened to indicate that the deficit would not re-emerge if output began to grow at a normal rate, or even if de-stocking came to an end. Moreover, the export improvement depends too much on the temporary favourable effect of higher export prices. The volume of overseas sales has actually been falling.

Rail strike

The overwhelming influence on sterling is still the internal rate of inflation, and international beliefs about the Government's ability to bring it under control. The 12-monthly British inflation rate is now 25 per cent. The widespread scepticism about the Chancellor's claim that it will be reduced in the autumn may be exaggerated, as the sceptics do not allow enough for the influence of the recession and the temporary post-Budget elements in the recent rise in retail prices. But the political and psychological intangibles, which so often throw out the economic arithmetic, remain. A great deal depends on the handling of the rail dispute.

Unless the British rate of inflation can fall to somewhere near the international average—which is around 10 per cent. and still dropping—sterling will continue to be subject to bouts of weakness and tend to fall against the major trading currencies of the world.

The wrong way to react to any further pressure on sterling would be to dip heavily into the reserves to support the pound. Even the modest support given in the middle of May cost a tenth of the reserves. Nor is there an easy solution through further overseas borrowing. U.K. public authorities have already borrowed more than enough on the strength of expected oil revenues. The petrodollar surplus is fast diminishing and the oil producers are now much more careful where they put their funds. The central bank swaps are designed to be repaid within months. The IMF, EEC and OECD facilities have political strings of various kinds; and in any case it would not be a good idea to exhaust all borrowing opportunities this summer.

Undesirable

It is natural, therefore, to ask if interest rate policy is pulling its full weight. An overseas holder will, other things being equal, keep his funds in London if the interest rate advantage he obtains is at least as great as the expected depreciation of sterling. Holders of three month sterling deposits who cover their holdings forward against Euro-dollar deposits now face an adverse interest differential of about 1 per cent. But rectifying this is not as easy as it looks, both because a large mass of sterling balances are not covered forward and because a rise in interest rates could provoke an offsetting widening of the forward discount on sterling.

On uncovered funds there is a differential in favour of London of 4-5 per cent., well below the gap between the rates of inflation. An artificial boost to U.K. interest rates to attract "hot money" would be undesirable in itself and probably would not work.

The real question is whether domestic monetary policy is on the right lines. The present heavily negative real interest rates of minus 15 per cent., even for non-taxpayers, are in part explained by the lack of business demand for credit. But it also owes something to the highly liquid position of the banks; the money supply figures understate the true degree of financial ease. One can argue about whether the credit base should be tightened now, or whether the authorities should wait for signs of renewed demand for credit. But on balance they are probably putting too much weight on the hope that negative real interest rates will prop up industrial investment, and paying insufficient attention to the longer term dangers of excessive monetary growth.

A new approach to steel pricing

FOR a nationalised industry to cut prices in order to wrest business away from its competitors is a rare enough event to call for some celebration, even if part of the reason is the severity of the present recession. But the British Steel Corporation's decision to reduce some prices by 8-13 per cent. on a group of widely used products (while increasing other prices "where the market will stand it") is especially welcome, for two reasons.

First, it represents a determined effort to win back some of the ground lost to imports during 1974, when the BSC's production performance fell far below market requirements, largely because of strikes and technical difficulties. Foreign steel poured in to fill the gap and the consequent trade deficit in steel (where the U.K. has traditionally been a large net exporter) played a significant part in the worsening balance of payments.

Contracts

Many of the contracts with Continental and Japanese mills which users made during 1974 are due to expire during the next six months. The BSC's offer is designed to win back these customers and to provide some badly needed additional business for its own plants, many of which—especially on the strip mills side—are operating at 50 per cent. of capacity or worse. How the foreign suppliers will react remains to be seen; they, too, are desperately short of orders in what is widely regarded as the worst steel recession since the war. But at least the Corporation is showing that it is prepared to fight in the market place and not to be bound by the rigid pricing policies which have characterised the industry in the past.

This new-found flexibility is the second reason for welcoming the BSC's announcement. For it implies that the Government (whose approval for major pricing decisions is in practice still required, despite the freedom which the BSC theoretically enjoys under the EEC rules) has at last accepted that the BSC should handle its pricing like any other commercial enterprise.

It is now generally accepted that the intervention by past Governments, both Labour and Conservative, to hold down the BSC's prices during periods of buoyant demand has had profoundly damaging effects both on the Corporation itself and on the Government's own finances. Between 1968 and 1973 the cost to the BSC of successive Government interventions on pricing was of the order of £150m. to £200m.

Clearly the level of steel prices is too sensitive a subject, both politically and because of their impact on the economy as a whole, for the Government to abandon all responsibility. But what it can do is to agree with the Corporation a broad pricing strategy, related to clear and realistic financial objectives, and let the management handle the tactics without day-to-day interference.

Relationship

If to-day's announcement indicates that the Government is moving in this direction, it is not before time. Two years ago the Select Committee on Nationalised Industries drew attention to the ministerial interference in the BSC's commercial operations. "The benefit to the national interest of these interferences is dubious," the Committee said; "the damage to the Corporation is patent." One of the first tasks for the new Secretary for Industry, Mr. Eric Varley, is to re-establish a relationship between his Department and the BSC which puts the commercial responsibility where it belongs.

EEC membership means more overseas chemical company spending in the U.K., reports Ray Dafter

A chemical reaction to the referendum result

THE chemical industry will be watching with more interest than most how Messrs. Benn and Varley settle down in their new jobs. On the face of it the Cabinet switch is fortuitous from the industry's point of view as it at least maintains an air of continuity.

As Industry Secretary, Mr. Anthony Wedgwood Benn had long realised the importance of transforming Britain's assets of North Sea oil and gas into value-added industrial products. It is reckoned, for instance, that the value of crude oil can be increased by 10 to 20 times by the time plastics products are produced. Thanks to a persistent campaign by the chemicals and plastics industry, the Department of Energy—and Mr. Eric Varley—has been getting a similar message in recent months.

Eastern coast

Dr. Arthur Taylor, chairman of ICI's petrochemicals division, has already spelled out the potential. Because of North Sea oil there could be an important shift of production, away from the inland areas like the traditional German sites (at the moment involved in pollution and environmental constraints) towards the eastern coast of England and Scotland. He believes that the U.K. production capacity for ethylene—one of the most important petrochemical materials—could grow from the existing 1.5m. tonnes a year to 4m. tonnes a year by 1985. This growth compares with 111 per cent. in the South of France and Italy (the next most favoured growth areas), 62 per cent. in West Germany and Austria and 71 per cent. in Benelux and northern France.

Such a swing in the balance of European production would mean the construction of five plants in the next decade. And it would be surprising if overseas companies were not involved in at least one of the five schemes. There can be little doubt that the British vote to remain a member of the EEC has strengthened the interest of foreign companies in the U.K. For continuing EEC membership is a prerequisite for many of the U.K. investment plans being considered by overseas companies. And over the next five years or so a higher degree of foreign investment is likely to be directed to the U.K. chemical industry.

While there are obvious economic and inflationary problems frustrating immediate developments—most companies are re-evaluating or retiming projects — the chances of Britain attracting more chemicals investment has been enhanced by the referendum result.

Indeed, a straw poll of some of the major chemical groups has shown that in the short to medium timescale, and given a more favourable economic climate, overseas companies might invest well over £600m. in new U.K. chemical producing capacity. Among ethylene projects, for example, at least two of the five groups evaluating the next major "cracker," involve overseas interests. One is Continental Oil which is considering building a plant in conjunction with the National Coal Board and the British Steel Corporation (Chemicals). Conoco already has a £7m. stake in the U.K. chemical industry through its interest in Vinatex and Staveley Chemicals. But Conoco sees the potential of building on North Sea oil feedstock to supplement its interests in PVC plastics (Vinatex) and speciality chemicals (Staveley).

Strengthened that view

Another U.S. company studying the possibility of using North Sea hydrocarbons (either oil derivatives or gas) is Dow. As Mr. Zoltan Merszei, president of Dow Chemical Europe, commented: "Britain is right for us and we want to be there in a big way." The U.K. affirmation of EEC membership has strengthened that view.

As an indication, Dow is likely to build two new agro-chemicals plants at King's Lynn, Norfolk, at a total cost of about £7m. One, for the production of a new agriculture fungicide, has already been given the go-ahead.

"I could not see these plants going ahead if Britain had voted to leave the Common Market; after all, it has only a fraction of the market for these speciality chemicals," commented Mr. Eric Huggins, managing director of Dow's U.K. operation.

It was a similar story from Rohm and Haas, the Philadelphia-based chemicals manufacturer. The company has announced a £10m. expansion of its methyl methacrylate monomer plant in Seal Sands, Teesside, to meet the long-term increasing demand for acrylic plastics, textiles, paper and coating emulsions and other plastics products. In a sense, the expansion is a reaffirmation of the company's confidence in the U.K. After all, Teesside was Rohm and Haas's first major investment outside the U.S.

Dr. John Cullen, the new managing director of Rohm and Haas (U.K.) made it clear, however, that if last Thursday's vote had been negative, the company would have halted the project which is still in the office-engineering stage.

In addition to this expansion the company was considering the U.K. as a base for ion exchange resin expansion, a project which might cost about £4m. The possibility of the plant coming to the U.K., rather than to another European country, is reckoned to be "evens," although here again the opportunity would have been dashed had the referendum produced a "No" vote. As it stands, Rohm and Haas (U.K.) expects to increase its proportion of exports from the current 35 per cent. of total sales to nearer 50 per cent.

Pigeon-holed expansion

Esso Chemical is another U.S.-based company which relies heavily on exports to Europe. (They account for almost half of the U.K. company's business.) The group is investing something like £5m. on "de-bottlenecking" operations—or uprating the existing capacity. More important, however, is something like £100m. worth of expansion which has been pigeon-holed for the time being.

Uncertainties over the Common Market issue was cited as one of the reasons why these projects have not been taken down from the shelves. Now, there are more fundamental issues: in particular Britain's ability to overcome its economic and inflationary problems. Last year the company made what it regarded as its first "satisfactory" profit since it was established ten years ago. From sales of £109m. it had net earnings of £8.25m. "We are going to need more ethylene capacity in Europe but we are going to have to see an adequate return for more than just one year before we go ahead in the U.K. in a big way," said Mr. Bernard Friend, the company's U.K. chairman.

Nevertheless, the accompanying table shows that the U.S. companies are likely to feature strongly in future chemical expansion in Britain. Borg-Warner (Chemicals), for instance, is spending some £15m. on the expansion of its plastics-producing complex in Grangemouth, Scotland. It represents the group's major current investment in Europe although, like so many other similar projects, it is being retimed in tune with the general economy.

Explosion in Belgium

The BXL subsidiary of the U.S.-based Union Carbide group, is currently spending £2m. on industrial laminated expansion but it might soon have been involved in a more ambitious low density polypropylene development had it not been for an explosion at Union Carbide's plant in Belgium in February. As it stands, the money which might have been available for the U.K. is being used to rebuild the damaged plant. Even so, it is possible that BXL may go ahead with its LDPE expansion at Grangemouth in a couple of years' time. This is a project which would easily run into eight figures.

U.S. companies have in recent years accounted for about 20 per cent. of the U.K. chemical industry's capital investment and turnover. The common language, ease of communications and historic links have always been an attraction, and clearly this affinity has been enhanced by the Common Market vote.

But other countries are also showing much more interest in using the U.K. as a base for European expansion. Here, the potential security of North Sea feedstock is seen as an incentive. Indeed, the Scandinavian group—Norsk Hydro and Scanitro—would not be considering building a £50m. ammonia plant in Scotland but for the availability of gas from the Frigg Field. Even then the U.K. would probably have lost the plant to Norway had the consortium been able to pipe the gas from the field across the Norwegian trench. A similar ammonia plant is envisaged by the Dutch Shellstar group for the North-West coast; a planning inquiry is expected later this year.

The Germans, too, are being enticed by North Sea oil. Bayer, for instance, is considering building a "major complex" in the U.K., its first investment of any size in this country. Several sites in the North-East and Scotland have been evaluated and there is speculation within the industry that a capital commitment of as much as £100m. might be involved.

Hoechst has been a little more forthcoming, outlining a programme of some £50m. over the next five years. It is known to be anxiously waiting to see which company builds the next ethylene plant before committing itself to its desired polyethylene expansion. Perhaps surprisingly, the other member of the German "big three"—BASF—has no plans for large investment in the U.K. Nevertheless, it still regards the referendum vote as a "welcome" benefit to the EEC and the British economy.

The Swiss-based group, Ciba-Geigy, which has already spent £100m. in the U.K. plans to invest over £50m. more although, it pointed out, the worldwide economic recession made the need for extra capacity less urgent.

The squeeze on cash flow and the uncertainty of markets are likely to foster more joint ventures, where risks are shared. Here again, the U.K. industry looks like benefiting. Sig. Giuseppe Ratti, a member of Montedison's Board, sees his Italian group becoming more deeply involved in the U.K. industry, for instance.

Enthusiasm for joint venture

Sig. Ratti, who is in charge of the company's international affairs, pointed out that Montedison and Monsanto were already involved in a project for manufacturing nylon intermediates near Hull. It was also linked with ICI in a venture in Sicily. "The pro-Market vote meant that Montedison would go ahead with greater enthusiasm in a planned joint venture with ICI to produce intermediates for colourants in the U.K. itself."

The interest of these overseas chemical companies in the U.K. industry is an encouraging feature, too seldom highlighted at a time of mounting economic problems. Naturally, they will proceed with expansion and diversification plans with extreme caution; in consequence the accompanying table must be viewed with a good deal of reservation. Nevertheless there is unanimous consensus among this list of manufacturers that North Sea oil, which started flowing from the U.K. sector on Wednesday, is a strong magnet. Furthermore, the pro-Market vote last week demolishes a formidable barrier to large-scale investment.

POSSIBLE U.K. INVESTMENT BY OVERSEAS CHEMICAL COMPANIES

COMPANY	NATIONALITY	INVESTMENT PLANS	COMMENTS
Bayer	German	£50m.-£100m.*	Evaluating site for major expansion
Borg-Warner (Chemicals)	U.S.	£15m.	Increase in ABS and MBS plastics capacity
BXL (Union Carbide)	U.S.	£2m. £20m. plus*	Extra industrial laminates capacity Low density polyethylene capacity under consideration
Ciba-Geigy	Swiss	£50m.	Expansion in a number of areas; possibly in pigments, industrial chemicals, plastics, and photographic products
Continental Oil	U.S.	£50m. plus*	Part share in ethylene plant with BSC and NCB; other associated projects being considered
Dow	U.S.	£7m. £100m.*	Two new agrochemicals plants Possible new ethylene plant
Dutch State Mines	Dutch	£15m.	Half-share with NCB in the rebuilding of the Flixborough caprolactam plant
Esso Chemical	U.S.	£5m. £100m.*	Modifications to petrochemicals plants Major chemicals expansion, currently pigeon-holed
Hoechst	German	£50m.	Further capacity for paints, fibres, veterinary products and office equipment business; possible expansion of drug and polyethylene interests
Monsanto	U.S.	"Significant"	Rubber chemicals plant at Ruabon, North Wales, due on stream mid-1976; water treatment chemicals plant at Newport, due to be completed this year
Montedison	Italian	?	Already in advanced project stage for a nylon intermediates joint venture with Monsanto at Seal Sands, near Hull. Further joint ventures in U.K. envisaged.
Norsk Hydro/Scanitro	Scandinavian	£50m.	Ammonia plant planned for Peterhead, Scotland
Rohm and Haas	U.S.	£10m.-£14m.	Major expansion of methyl methacrylate monomer plant at Seal Sands. Possible expansion of ion exchange resins business.
Shellstar	Dutch	£50m.*	Ammonia plant planned for Ince Marshes

* Financial Times and chemical industry estimates.

N.B.: The table lists some of the schemes planned by selected major companies. It is not comprehensive.

MEN AND MATTERS

Corfield of ITT's job for the foundrymen

When asked once what quality he most prized in an executive, Harold Geneen is said to have given the unflattering reply, "Availability." True or not, the story says something about ITT's idiosyncratic management style. The demands made on its executives' time are enormous, this being one reason why you seldom see ITT men taking on other work, besides membership of industry bodies they are directly involved with.

But Kenneth Corfield, deputy chairman and managing director of Standard Telephones and Cables and senior officer for ITT in Britain, this week starts a job which, by definition, has nothing to do with ITT. Chairmanships of Little Neddies go to someone outside the industry concerned and Corfield takes on the new ferrous foundries Economic Development Committee.

"You could," says Corfield, anticipating cynicism, "say that it's part of the (ITT) better image programme." But Corfield would prefer us to see him as one of the businessmen who, if government gives them a chance, have a real desire to do what they can for Britain.

The ferrous foundries need any help that is going. To-day's news of BSC price rises is harsh, and as a whole, the industry suffers from poor profitability, manpower shortages, dramatic cyclicity (iron casting production last year was the lowest on record) and proposed anti-pollution legislation which, when implemented, looks like burying many smaller companies.

The good news is that the Government knows the problem, having selected the ferrous foundries for assistance. They may even get the lion's share of the £50m. Mr. Healey set aside in the Budget for "modernising and restructuring" of certain industries, since it is now recognised that even some of the small, specialist foundries are vital for major industries.

When Corfield's team meets formally for the first time on Wednesday, he will find much of the groundwork on the aid recommendations done already by an ad hoc working group from NEDO, the Department of Industry, unions and industry associations. He expects to find, he says, some important cases which need quick action, but these will mainly be "quite small and clearly unchallengeable."

When the immediate aid questions are settled, the underlying troubles noted in NEDO's "Industrial Review to 1977" have to be tackled, including the health factors—Corfield thinks some foundries "have no appreciation of what type of pollution they are causing"—and the possibilities of major restructuring—"the business is well known to be too fragmented."

He should get plenty of backing from the industry, which, for the moment at least, hopes the new EDC will be more effective than the old system of two somewhat moribund Department of Industry sub-committees set up at steel nationalisation time. And Corfield does know the language, his family's business—though he never worked in it—being ironfounders Mason and Burns of Walsall, where an uncle is the present chairman.

Genial

One thing the Irish are good at is the nicely rounded rude remark. The Mayor of Wexford, Alderman James O'Mahoney, is obviously well practised. At the local Chamber of Commerce dinner he was introducing Dr. Liam St. John Devlin, chairman of CIE, the state-owned public transport system. "Anyone who can raise bus, rail and freight charges by one-third and then, after accepting a £17m. subsidy, still expects to lose £9m. and hold on to his job is well worth listening to," said O'Mahoney.

Walking warnings

Perhaps the Victoria State Parliament has time on its hands. Legislation is to be introduced asking for all T-shirts bearing cigarette brand names to carry the words "Warning—smoking is a health hazard."

Do you want to be adult?

Not every American fashion translates instantly to Britain, even in the suggestible world of psychiatry applied to management theory. It is now 11 years since the late Dr. Eric Berne accidentally wrote a best-seller in *Games People Play*, which has become one of the source books for Transactional Analysis. Originally used as a tool of psychotherapists, the technique was quickly adapted to business and industrial use.

Airlines liked it—American Airlines being one which put 15,000 staff through customer contact training on transactional analysis lines. Briefly, Berne's idea was that we adopt, at different times, parent, child or adult ego states. For instance the airline passenger making a terrible fuss is probably putting on a very adult, domineering show to hide a child ego state—his fear of flying—and the stewardesses have to realise this and start making caring, motherly responses instead of just getting angry.

Part of the popularity of transactional analysis lies in it not promising any instant solutions, but merely helping people to understand what is happening to them. But in Britain, although some doctors and social workers have taken its methods seriously, industry has remained unconverted, one exception being some experimental work by United Biscuits.

The next month, however, sees two fresh attempts to push Berne's ideas: one a conference in Nottingham to coach personnel and training managers in transactional analysis; the other two London seminars by Dorothy Jongeward, one of the American pioneers of applying the techniques to work fields. Her book on the subject is called *Everybody Wins*, which I suppose we might do if, in business situations, those involved adopted an adult ego status—rational, cogent, unemotional—to start with. The transactional analysts seem to think we don't.

Clerical calm

Two nuns travelled up to London one day in their mini car. On arrival one went off to do some shopping and, on returning, found both the car and the other nun gone. "Excuse me," she said to a passing bishop, "have you seen a nun in a red mini?" "No," said the bishop, "but I wouldn't be surprised by anything in the Church of England these days."

Observer

FINANCIAL TIMES SURVEY

Monday June 16 1975

TUNISIA

Tunisia has enjoyed steady progress on most fronts since independence and has recently achieved some impressive economic successes. Apart from a rather eccentric foreign adventure early last year, President Bourguiba's unifying personality has done much to provide a clear lead for the country.

Fatherly hand on the helm

IF ONE had to choose one word which might describe Tunisia's most identifying characteristic then it would probably have to be "stability." There are others, of course, some of which are equally flattering and some of which are less so. But "stability" is what best captures Tunisia's quiet and individualistic march since it achieved its independence.

There are some who would argue, and do so with a well-marshalled set of arguments, that this stability is superficial and largely linked to the charisma and fate of one man, after his departure and that the stresses and conflicts which exist within Tunisian society will bubble, or possibly erupt to the surface. That man of course, is Habib Bourguiba, President and, in a very real sense for most people in Tunisia, father of the nation.

Whether the sceptics are right remains to be seen, of course, though the arguments they put forward are not entirely unreasonable and these are examined in more detail in a further article. What is certainly true is that President Bourguiba, whose age and health no longer permit him to run the country's affairs at an administrative level (though he retains control of overall policy-making) remains an all-pervading and, in a sense, almost constraining influence, rather like a respected Victorian father whose children are too much in awe of him to allow themselves an uninhibited expression of personal choice and for whom dissent is uncomfortably close to impertinence.

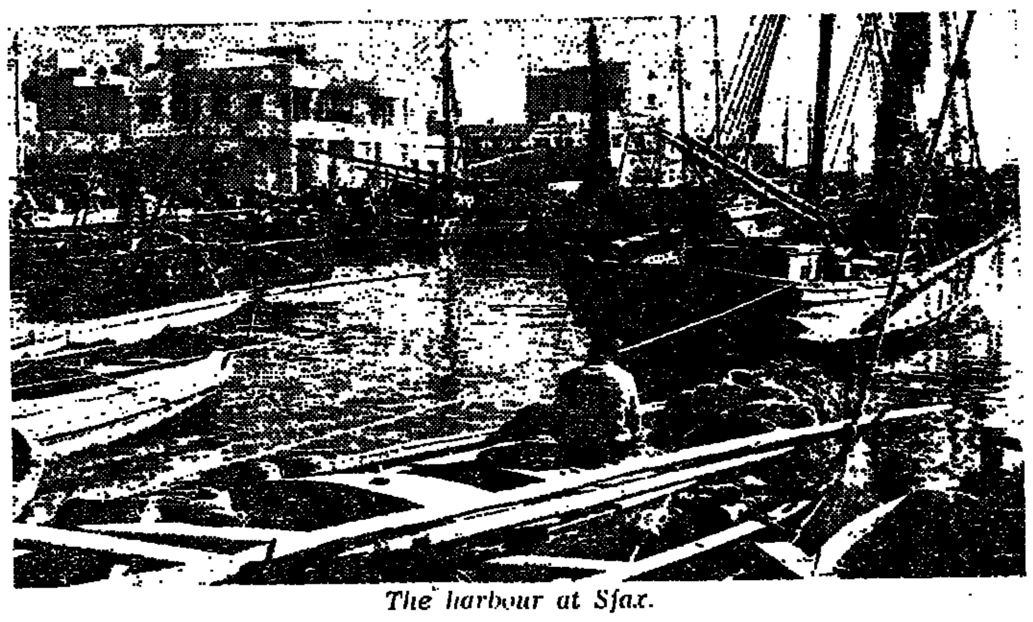
Bourguiba's special place in Tunisian history was enshrined at the end of last year when the National Assembly confirmed him as President for life which, his ministers insist, is an act which should be interpreted less as a political straw in the wind and more as a mark of respect for a unique individual.

In any case the idea has clearly been warmly welcomed by the vast majority of Tunisians for whom Bourguiba, whatever else he may mean to them, also symbolises the stability and continuity which has given them one of the highest standards of living in North Africa and a level of economic progress and social enlightenment quite uncharacteristic of the Arab world.

At a time when the rest of the world is suffering from the effects of a deepening recession, Tunisia's economic progress, its growth rates, its level of investment and financial stability are indeed impressive; though whether these are the results of political stability or whether they are the causes of that stability is unclear. Probably a bit of both. Certainly the present Government has astutely used the favourable economic conditions to its political advantage.

In recent months the Government has been slowly relaxing its previously iron grip on the commanding heights of the economy allowing foreign capital greater freedom of movement and opportunity and releasing market forces within the country to respond more naturally to the laws of supply and demand. The co-operative system which characterised economic strategy in the sixties is now no longer mandatory and, though it still has some serious problems to overcome which, to some extent, act as a restraint on the rest of the economy's ability to expand further, the predominant agricultural sector is clearly much better for this greater flexibility.

A recent report by the International Bank for Reconstruction and Development was particularly favourable in its assessment of the management of the economy and this has added to the general air of confidence which pervades the inner sanctums of the Kasbah—Tunis's ancient and ornate seat of government.



The harbour at Sfax.

The same firm hand and clear vision which appears to guide Tunisia's economic policies cannot be said to have been in evidence in the field of foreign affairs in the past 18 months or so, though in one area at least, Tunisia, or more precisely Bourguiba's, policies have proved, in retrospect, to have been right if not prophetic. This is in the domain of the Arab-Israeli conflict where the Tunisian President's traditional stand, of making peace with Israel and finding a political solution to the Palestinian problem is now the conventional wisdom. If anything, Bourguiba's policies which, when they were first uttered some ten years ago, were regarded as treason by the rest of the Arab world, are now almost extremist since they hold out for a solution based upon the continued existence of Israel not within the 1967 boundaries, as Egypt and even Syria are willing to concede, but further back within the 1947 partition borders.

The past 18 months have also, however, witnessed a less fruitful excursion into foreign policy by the President in the shape of the now celebrated Djerba declaration of January 1974 which enshrined, but never fulfilled, the aim of full political, economic and military union between Tunisia and its eastern neighbour Libya.

The real story of what happened immediately prior to Djerba and the encounter between the ageing Tunisian leader and Colonel Muammar Khedafi, Libya's young and zealous President, is still far from clear. On the face of it the project for union was the result of momentary if ill-advised enthusiasm as well as a bid for personal advancement, if not outright power, by Mr. Mohamed el-Masmoudi, the then Tunisian Foreign Minister, now living in morose exile.

The Prime Minister, M. Hedi Nouira and other key personalities who would almost certainly have prevented things getting that far had they known what was happening, were away at the time though they quickly returned and nothing more has since been heard of the idea. The referendum, which was to have been held to ratify the creation of the new "Islamic Arab Republic," has been postponed indefinitely and the official explanation is that the declaration was misinterpreted by both sides but that union with Libya is still a fundamental goal of Tunisian, and presumably Libyan foreign policy. The process however will have to take longer. Whatever may have been Tunisia's motives in embarking on this ill-fated venture, it is hard to escape the conclusion that Col. Kheddafi, having failed to secure the union, with Egypt, in which Libya, and he personally, would play a dominant role, simply turned his attentions and his ambitions to the West where, presumably, he saw an easier catch.

Since then, of course, Tunisian suspicion of Libyan motives has increased and relations cannot have been much improved when the Tunisians discovered only after the Soviet Prime Minister's visit to Tripoli and Tunis that Libya was on the verge of signing a multi-billion dollar arms deal which would almost certainly carry in its wake a long-term if not quasi-permanent Soviet presence in Libya. Such a presence, apart from fundamentally altering the balance of power in the region must, as one high Tunisian official put it, raise "serious question both about Soviet and Libyan intentions."

The whole complex web of relationships between the North African States appears to be in something of a poor condition at present with the reality, if not necessarily the vision, of Maghreb unity receding further into the distance despite an endless series of talks and negotiations. In some respects this seems to suit Tunisia's present mood of singular self-confidence and determination to pursue, at the greatest possible speed, its drive for economic viability.

One area which has deeply preoccupied the Government, and which has summoned up a minimum of co-ordination between the three Maghreb States (Tunisia, Algeria and Morocco) is the ongoing negotiations with the European Economic Community aimed at reviewing and significantly strengthening the existing association agreements for trade and economic co-operation.

The negotiations have been going for some time now and have been held up, at various stages, by two broad areas of disagreement between the Maghreb States and some, though by no means all, of the members of the Common Market. One of the problems has been the growing reluctance of certain European countries, notably France, to maintain the present level of North African labour at a time of rising unemployment and slack economic activity in its own country. Another problem has been Italy's persistent opposition to certain parts of the proposed free trade agreement particularly in the agricultural field.

The negotiations received a belated, though by all appearances, none-too-serious setback when the Community announced agreement with Israel on a similar trade pact.

The Euro-Arab dialogue went off on schedule in Cairo earlier this month (despite threats to suspend it) and the negotiations between the Maghreb and the EEC are unlikely to be delayed.

Realism and tactical flexiblity have been a particular characteristic of Tunisian policies over the years: they have been, and are likely to remain for the foreseeable future, essentially moderate policies based upon the interests of Tunisia rather than those of a more comforting, though less predictable and in the long run less profitable militant Arab dogma.

Alain Cass

BASIC STATISTICS

AREA:	63,378 sq. miles
POPULATION:	5.5m. (est.)
GDP (1974)	D1.386bn.
GDP per capita	D252 (est.)
TRADE:	
Imports (1973):	D261.6m.
Exports (1973):	D174.5m.
Imports from U.K. (1974):	£11.5m.
Exports to U.K. (1974):	£6.2m.
CURRENCY:	£1=0.86 Tunisian Dinars

TUNISIA II

With the economy at a turning point, the economic successes of recent years have produced rewards and challenges to be met by imaginative policies. Inflation has been combated by subsidies. The trade deficit has been reduced. Money is tightly controlled.

Economic realism

IT WOULD be surprising if an economy which has managed to register average real growth rates of around 10 per cent. a year for the past four years in the current economic climate did not find itself the recipient of a variety of plaudits. Indeed, it would be hard to escape the conclusion that such plaudits may reflect, as much as anything else, the inadequacies and misfortunes of a world struggling to keep its head above water in particularly bad economic weather. Judgments are, by definition, comparative, and, if one had to make a judgment about Tunisia's economy, it would almost inevitably have to be favourable, if not enthusiastic.

Global judgments, however, tend to do things. They almost always oversimplify what is, at best, a complex situation (and in Tunisia's case this is particularly true) and they also tend to obscure the nature of the problems the country faces by giving a picture which lacks the subtlety of shade required for a measured appreciation of the situation.

Fortunately, Tunisia's economic managers have not allowed success to go to their heads. At most levels, one finds a hard-headed realism (not always the characteristic of booming but underdeveloped economies), which largely removes the very real risk of complacency.

The point is not made flippantly. There is a prevailing argument among the present Government's critics that M. Hedi Nouira, the Prime Minister and the man unquestionably in overall control of the economy, and his Government are enjoying a particularly good set of circumstances not of their making such as the weather, which have boosted production and provided financial stability and that, to quote one such critic, they are "sitting on their laurels."

On the whole, this does not appear to be the case. What is true, however, is that the economy is at a turning point and that successes of recent years have produced rewards as well as challenges which are likely to be met only by imaginative economic policies.

Investment

The challenges, which have a lot to do with future planning and the abilities of M. Nouira's Government to attract investment in the right areas and deploy resources effectively, are the subject of following articles. Here we confine ourselves to examining the background to the present achievements, the policies that have achieved this and the opportunities this has created.

The years immediately after independence were not easy ones. The suspension of financial assistance by the French Government, the repatriation of foreign capital and the severe shortage of skilled manpower were debilitating factors. These were offset by substantial amounts of U.S. aid, good harvests in 1958/59 and high agricultural exports. But in the early years and throughout the 60s, economic conditions were characterised by large trade and balance of payments deficits, unemployment and rather haphazard planning procedures—consistent characteristics of a developing country.

From 1961, when development planning can be said to have begun in earnest, to 1969, the economy registered average annual growth rates of around 4.6 per cent. Agriculture, then and now, the predominant sector, whose success, year by year, fundamentally affects the progress of the rest of the economy, grew by less than half that figure, actually registering falls from 1966-69 due, first to bad weather, and the dislocation caused by the drive to co-operatives and, in 1969, the floods.

Since then, of course, growth has accelerated sharply. GDP, according to Tunisian figures, which appear to have received independent agreement, rose by 9 per cent. in 1971 and over 16 per cent. in 1972. These exceptional performances were due to a number of factors, chiefly good harvests, spectacular growth in the tourist industry and solid improvements in the financial position due to a conservative monetary policy, reversing earlier and too rapid expansion of money and credit, which, up to 1964, had been responsible for serious financial imbalances.

Improved

1973, with a growth rate of 2.8 per cent. was not such a good year, though several sectors (trade, manufacturing, industry and construction) continued to grow at a healthy pace. The year was, as it has turned out, no more than a hiccough and 1974 not only achieved, but probably surpassed, the overall growth target of 9 per cent. This was thanks, largely, to the rise in oil, phosphate and olive oil prices, as well as improved terms of trade position.

The rise in commodity prices has been enormously helpful in further stabilising an already healthy financial position.

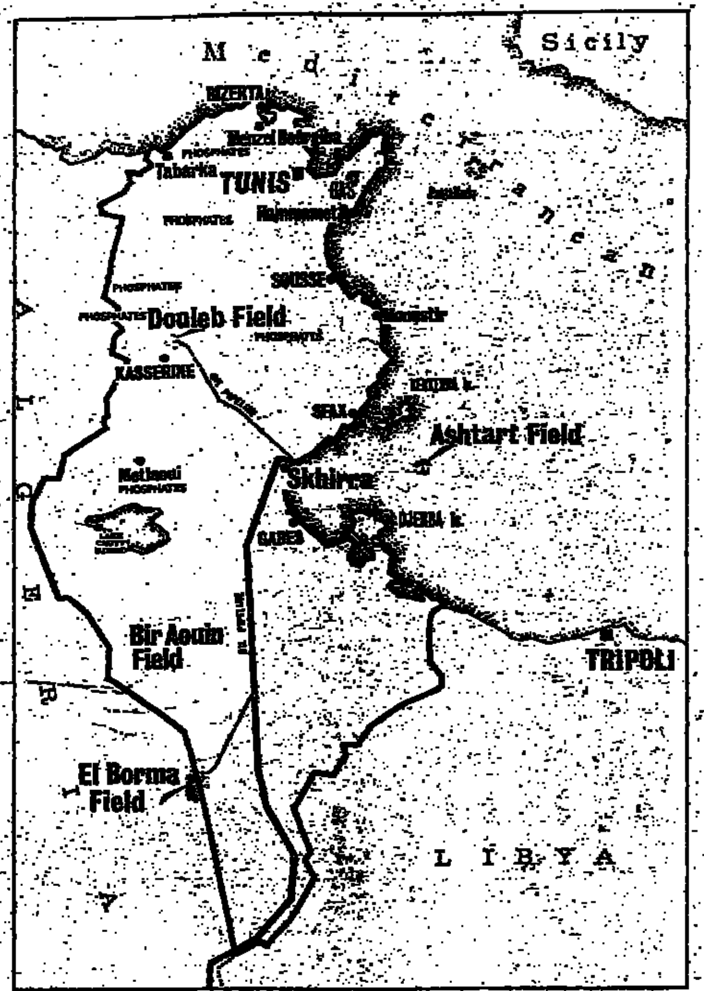
The Government involvement in and control of the broad area of finance is especially marked with distinctive policies in money supply, investment promotion and price control.

Foreign exchange reserves have stood at over $400m. for some months now (or roughly five months imports), Gross Domestic Savings stand at over 17 per cent. of GDP, while Gross Capital Formation is consistently over 20 per cent. of GDP. This has meant a reduction in the volume of foreign capital required for investment, though more recently foreign investment has been more actively encouraged to meet development needs, and the tight monetary and credit controls, which characterised the late '60s and early '70s, have been relaxed.

It should be said that some observers and officials feel that, despite this, credit and money policies are still too tight and that considerable further potential exists both in local capital markets and those abroad. The Government is still reluctant to allow Tunisian investors to raise money abroad, largely because, after the years of overcommitment, the administration feels very strongly that viability can only be assured by living within one's means.

In any case, with investments in 1974 exceeding forecasts, to reach D322m., or over one-third of Gross National Product, this remains, at best, a moot point.

Raising money abroad aside, local equity markets have shown a healthy growth with the volume of business on the Bourse de Tunisie rising from D2.9m. in 1971, to D3.3m. in 1972, D5.2m. in 1973 and virtually doubling to D10.2m. last year.



The chief instrument of monetary policy in Tunisia is the Central Bank and, one suspects, almost equally influential in other areas of economic policy. Over the past few years, the banking sector has considerably expanded and one of the reasons why pressure on the Government to allow the raising of capital abroad is not excessive, is that the deposit banks, finance institutions, specialised credit banks and development institutions satisfy a high proportion of local demand.

Interest rates are strictly controlled by the Central Bank, which uses a variety of quantitative restrictions to control credit expansion, but there may be a case for a measure of liberalisation and for allowing market-forces to determine certain interest rates, thus freeing idle potential. Under the Third and Fourth Plan, substantial amounts of private capital have been raised to finance State enterprises, though where those enterprises enjoy a monopoly situation, it is difficult to say whether that money is being put to good use or simply used as additional means of deficit financing.

One of the Government's major preoccupations is prices. Direct subsidies in 1974 reached nearly D50m., mainly on sugar (D10m.), fertilisers (D10m.), and cereals (D18m.). The Government claims that inflation has been contained to around 4.5 per cent., which is well below the world average. Consumer price rises are said to have risen by only 17.2 per cent. from 1970-74, against a rise in salaries and wages of between 25 and 30 per cent.

What is certainly true is that wholesale prices have risen by at least two or three times as much as retail prices, so that hidden inflation is probably nearer 15 per cent. or higher. At any rate, the burden which the Government has chosen to shoulder in protecting the public from the effects of inflation have won it considerable admiration and, with its full employment policy, should pay handsome political dividends in the short term.

Perhaps the most dramatic result of the Government's policy of financial stabilisation has been the structural change in and improvement of the balance of payments position.

Surplus

After a period, ending in 1968, when payments were consistently in deficit (D10.2m. in 1961/64, D4.4m. in 1965 and D1.7m. in 1966/68), the position improved quickly. In 1969, Tunisia registered a surplus of D8.4m. and D40.1m. in 1971, though this is reduced to D24.8m. by adjusting the effect of olive oil exports.

The trade deficit, which stood at around 10 per cent. of GDP in the early 'sixties, has been subsequently reduced to less than 3 per cent. Exports, again as a proportion of GDP, have risen, while imports have fallen. Despite, therefore, the freak improvements based upon high olive oil earnings due to good weather conditions and other variable factors, there is clearly an underlying improving trend both in the balance of payments position and to some extent, in the external trading account, though this is likely to fluctuate depending upon the pace of industrialisation and capital equipment imports.

Tunisia's trading patterns have been traditionally influenced by its relations with France. Exports to and imports from France accounted for nearly two-thirds of Tunisia's external trade, but after a series of events culminating in 1969 with the first association agreement between Tunisia and the EEC, France lost its predominant position in most areas, though still, in 1972, accounted for around 30 per cent. of Tunisian trade.

The Community accounts for over half of Tunisia's trade (51.8 per cent. of exports and 55.6 per cent. of imports in 1971), while very little trade is done with its Maghreb partners (11.6 per cent. of exports and 0.4 per cent of imports). The concept of a Maghreb Common Market, as one high Tunisian official put it, is "for the present an unrealistic one." Ever since it severed its more formal bilateral economic ties with France, Tunisia has been attempting with some success to diversify its sources of trade and, certainly, if its export-orientated strategy is to bear fruit this must remain a prime objective.

The United States has now moved into second place as supplier to Tunisia with imports reaching 15 per cent. in 1972. (This includes large amounts of commodity aid.) So far as the re-opening of the Suez Canal is concerned, it remains to be seen whether Tunisia can exploit the shorter routes to its eastern markets to improve its position there.

Strategy

A major aspect of Tunisia's external trading strategy must be its renegotiation, along with the other Maghreb countries, of the association agreement with the EEC. As has been mentioned in the introductory article, this appears to be near conclusion (the EEC's preemptive deal with Israel notwithstanding) and strong hopes for a more solid trading future are pinned on the successful outcome of negotiations. Clearly the Maghreb countries stand to gain a lot from this agreement.

The chief proposals on the negotiating table fall into three broad areas. The first is economic co-operation. This includes commercial agreements, co-operation in manpower training and technical assistance, private investment and sub-contracting. The second is financial co-operation and here the Tunisians are particularly looking for a boost to investment, as well as aid on soft-terms. Finally, and perhaps crucially, a free market area is envisaged, allowing unrestricted entry of industrial and agricultural products to the EEC in return for a lowering and eventual abolition of custom duties and other restrictions on EEC products into the Maghreb. So far, negotiations have run into difficulties, primarily due to Italian opposition to the trading clauses, though senior Ministers in Tunisia appear confident that a compromise can, and will be found in the not too distant future. There is also, perhaps understandably, in the present recession, some disagreement over migratory labour quotas though again, the difficulties do not appear insurmountable.

Perhaps one of the most pleasing things about Tunisia's politically directed economy—and it remains that and is likely to do so for some time to come—is that despite a healthy dynamism and high ambitions, it is not, as one might suspect, an economy simply hell-bent on profitability.

The underlying aims of M. Novita's *contrat de progrès* are essentially social. The tight control exercised in monetary and fiscal policy and in other sectors of the economy, have, on the whole, prevented the sort of disaster so evident in the unrestrained economies of certain other developing countries.

There are, of course, some serious problems to be tackled, which are examined in greater detail in the article on the facing page. Infrastructure, unemployment, a paucity of technical expertise, a lack of capital, an unequal wage structure, insufficient pre-investment studies and so on.

The objectives of the "Perspective Decannales" — self-sustained growth, equality of opportunity, full employment and a complete overhaul of institutions—may not be entirely achieved, but the argument that Tunisia is well on the way to doing so is a hard one to counter.

Alain Cass

FOREIGN EXCHANGE REVENUES

	Percentage Distribution 1963–64	1966–67	1969–70	1971–72
Olive Oil	12.5	8.4	5.3	12.7
Wine	10.9	3.8	2.3	0.8
Agri. prod.	17.5	13.8	8.9	6.4
	40.9	26.0	16.5	19.9
PHOSPHATES				
Rock	8.9	9.7	5.9	3.9
Processed	4.2	6.7	4.9	3.8
Other mining	4.4	4.9	5.1	3.4
	17.5	21.3	15.9	11.1
Petroleum	—	6.4	13.4	12.8
Manufactured goods	4.8	5.8	6.1	5.1
	63.2	59.5	51.9	48.9
Tourism	5.5	12.6	17.3	22.6
Workers remittances from abroad	2.9	4.1	7.3	9.2
Other invisibles	28.4	23.8	23.5	19.3
	36.8	40.5	48.1	51.1
Total	100.0	100.0	100.0	100.0

Source: Ministère du Plan

TUNISIA III

Tunisia is not naturally a rich country, and national planning has had to be most astute in using the generally limited resources available. A degree of luck in oil strikes, a world commodity boom and tourist growth have helped achieve a healthy rate of economic growth. Problems of high unemployment.

Planning strategy

THE EVENTUAL success, or indeed failure, of Tunisia's *economic strategy*, will depend to a substantial degree on the astute deployment *of its assets*, which are limited in most fields and abundant *in a small number* of others. For, despite the present highly favourable conditions, which have helped the country's economy maintain an underlying momentum (good weather, new oil strikes, a healthy tourist revenue and the manifold increase in commodity prices) Tunisia is not, in the orthodox sense, a rich country.

Even in those sectors where it does benefit from natural advantages, the difference between a good and a bad year (which in the nation's present stage of development could *make all the difference* to its economy) rests largely in areas *outside Tunisia's direct control*. The weather, world demand for olive oil, phosphate prices and even the tourist industry are all areas where growth may be devoutly wished for, but rarely manipulated and far less controlled.

Development planning in Tunisia has been a more or less coherent element of its economic strategy since the early 1960s, when, in the general context of the "Ten Year Perspectives" *(Perspectives Decennalles)*, a series of plans were implemented. After the early years, characterised by over-enthusiastic, if not ill-conceived and ill-adapted excursions into socialism based largely upon the cooperative concept, which found little favourable response in the national character, later administrations have shifted Tunisia back on to a broadly liberal economic path.

Bulwarks

In some respects, the aims of Tunisia's *economic development* have remained unchanged for some years. Its chief bulwarks have been, and remain, the transformation, as rapidly as possible, of the economy and the society it serves, into a viable and (for the Arab world, certainly) modern instruments of progress.

The chief objectives of the Four-Year Plan 1973-76, more specifically, are high and accelerating growth, diversion of investment into more productive export-orientated industries, coping with the country's chronic unemployment problem and maintaining the present level of internal and external financial stability.

The Plan envisages a real growth in GDP of 19.8 over the three-year period with total consumption at 1966 constant prices of 7.5 per cent. a year. The Five-Year Plan, still in draft stage and due to be presented to the Council of Ministers and Parliament *later this year*, foresees a slightly increased growth rate.

The role of the public sector has been crucial in this overall *strategy and, though of slightly* less significance since the policy *reorientation of 1969, it has* been largely responsible in achieving the exceptional rate of gross capital formation, which in 1961 represented 17 per cent. of GDP, 27.6 per cent. in 1965 and remaining consistently over 20 per cent. since.

At the outset of the "Ten-Year Perspectives" per capita GNP stood at around $205 at current prices, rising to $310 in 1971. In real terms, this represents a growth of 2.5 per cent. a year against 4.7 per cent. in GDP which, though lower than the target figure of 6 per cent., is still respectable enough.

In addition, the healthy growth in savings to around 19 per cent. of GDP in 1971 (which reduced the proportion of investment financed by public external borrowing from 52 to 12 per cent.) the improvement in the balance of payments and the emergence of a foreign exchange surplus, meant that planning in the 'seventies could proceed on a relatively solid financial base.

The Four-Year Plan soon to merge into the Five-Year Plan, was therefore conceived in favourable conditions. It also had to face up to some serious shortcomings which were, and remain, significant constraints, that could, if they are not overcome, slow what has been impressive progress.

These constraints are chiefly to be found in the relatively small contribution which industry makes to exports (manufactured goods in *1970-71* contributed less than 5 per cent. of *total foreign exchange earnings* against 14 per cent. for agriculture, *26.1 per cent. for mining* and oil and 55 per cent. from workers' remittances and tourism): for a country where a high literacy rate and manual skills are a feature this could certainly be improved on. Tunisia also has a relatively underdeveloped infrastructure which itself, acts as a break on *industrialisation particularly* in the inland areas where *investors are reluctant to commit* capital. This, in turn, perpetu*ates a situation in which* nearly two thirds of the population *lives off the land in one way or* another, while contributing (in *1973) less than 20 per cent.* to the GDP.

*A growing agricultural popu*lation contributing a declining *proportion of GDP is a continu*ing trend confronting the Government, *with the choice of* either increasing agriculture's *share in GDP (to, say, at least* 30 per cent.) or restructuring *the economy, which, though* more sensible in the long run, *may prove extremely difficult in* the short or medium term.

*Despite recent attempts to re*vive the role of the private sec*tor, the commanding heights* (as well as some of the lower echelons) of the Tunisian economy, remain in the hands of the Government. Economic strategy, not surprisingly, has a strong political flavour. The chief aims appear to be to ensure political stability through the creation of employment and the continued growth of Tunisia's already advanced social services.

The problem of employment is one which is particularly relevant both in the context of Tunisia's ambitious growth targets and in the declining proportion of unemployed who can be offloaded abroad, especially France, where depressed levels of economic activity make immigrant labour an unnecessary *luxury. Tunisians would, natur*ally, like to absorb all their *excess labour at home*, but with the need for at least 50,000 new *jobs a year, this is an unlikely* prospect for some time.

Realism

The Four-Year Plan, and the one it precedes, are comprehensive strategies prepared for every sector of the economy (16 sectoral commissions were set up in preparation) and with the realism which characterises much of the present administration's economic policies are reviewed and where necessary, adapted to changing conditions.

In the economic field, the *overriding concern is in the* non-agricultural sector, with the *accent on industries, which are* both highly productive and *labour-intensive. Investment is* projected to increase from *D718m. to D.1.235bn. (this figure* has already been surpassed) *creating 119,000 new jobs chiefly* in industry and the services.

The import-substitution phase of its economy, well in hand *(though not entirely overcome* yet, particularly where supply to the tourist *industry is con*cerned) the emphasis is now on *export-oriented heavy industries* and a major effort to maximise *production in the extractive* sectors. Notably, these include a complete overhaul of what has become a very unproductive phosphate industry (compared with that of Morocco and Jordan), a fifth port for industrial export at Gabes, major petro-chemical development and a series of unrelated heavy industrial developments.

The problem of infrastructure is regarded by the Government as an urgent priority, largely because its solution would also have a direct effect upon the equally vexing problem of the over-concentration of industry along the coast, and in particular, in the area of Greater Tunis, to the detriment of central and southern Tunisia.

Predominance

The growth and predominance of Tunis has been a central fact of life in recent years and though there may be some political advantages to this, economically it has meant a drain on the rest of the country. More than 1m. of Tunisia's 5.5m. inhabitants now live in Greater Tunis.

Tunis accounts for 29 per cent. of the working population, 45 per cent. of hospital beds, 52 per cent. of hospital doctors, 26 per cent. of total national investment, 52 per cent. of industrial jobs and 95 per cent. of university facilities. The attraction to Tunis has, it is thought, been partly responsible for the rural exodus of recent years. Unemployment in the country (though more difficult to measure accurately) is estimated to be at least as high as 16 per cent. *Tunis is growing at the* rate of 50,000 people a year and *it is estimated that the popula*tion will reach 3m. by the year 2000. A *major part of the* Government's strategy is to halt this trend and more evenly redistribute investment, jobs and social services throughout the country.

One of the problems that the Government faces in accurately projecting development requirements in any field where population control and manpower estimates figure is that its calculations have to be based on the now outdated estimates of the 1966 census. Unemployment estimates, for example, have to be treated with some caution and no really reliable set of projections can be made until the results of the census, currently in progress, are available.

Efforts are being made to encourage people to stay in the country through land reform, better use of resources, better and bigger credit facilities, largely for the industrialisation of agriculture, and the development of extension services.

From the investors' point of view, the plan envisages a series of measures to improve the productivity of enterprises as well as, through the 1972 Investment Law, provide attractive incentives, including import and fiscal liberalisation, to encourage private capital.

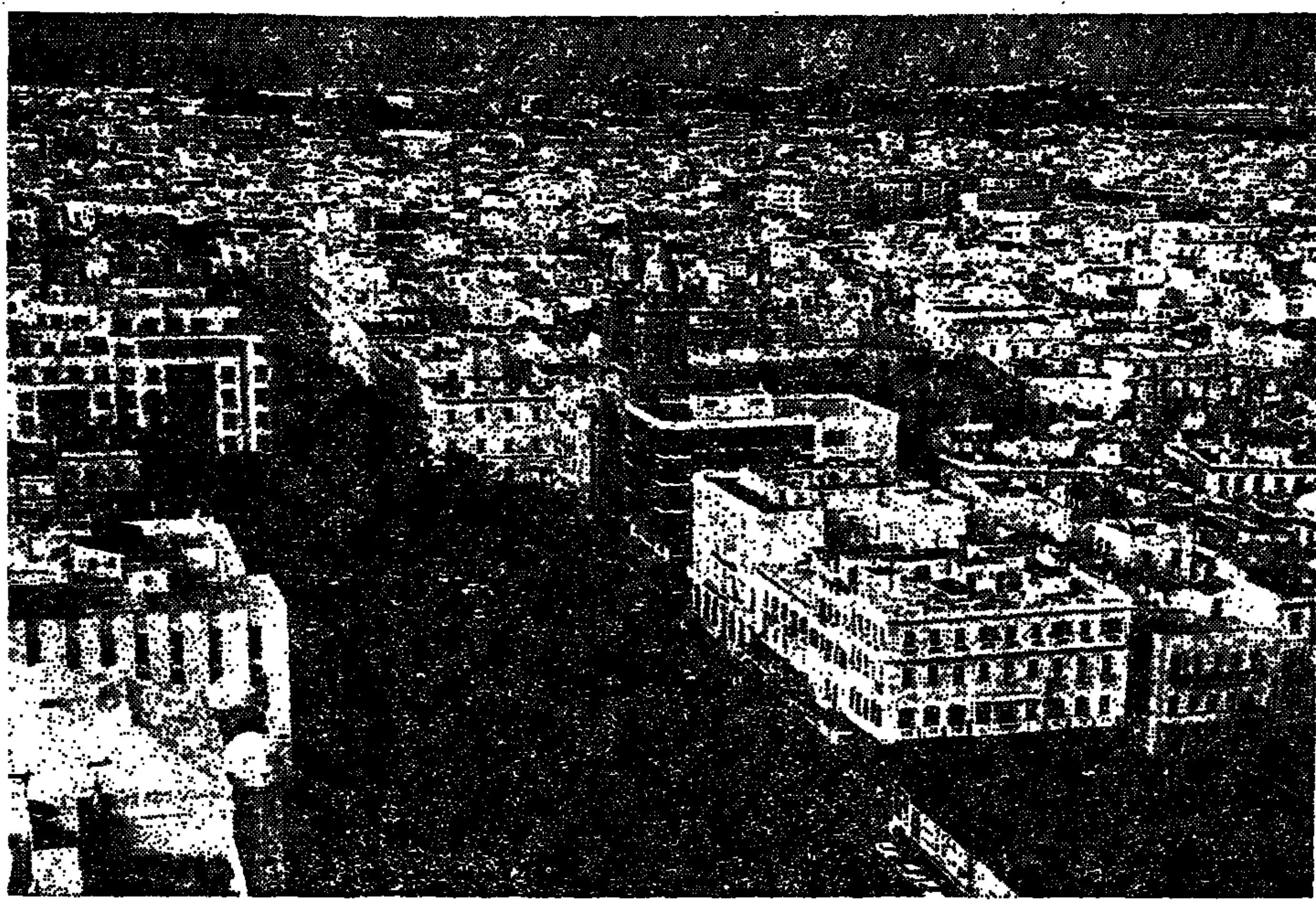
The plan also envisages greater efforts in the field of technical assistance in industry to achieve the desired level of productivity. Training and *education programmes in most* fields are also regarded as an *essential part of medium-term* development.

Education in a country where it has played a significant part *in social progress, needs to be* restructured, the Government believes, *with a greater response* to what it calls the "economic" demands of a dynamic society.

If there is an area where more attention could be given, it *is* probably in the degree of project co-ordination and integrated development, where a certain lack of cohesion may have slowed things in recent years.

Overall, however, Tunisian development planning is well suited to the country's needs and given efficient implementation in the field, should assure the continued healthy growth which has characterised Tunisia's economy in the seventies.

Alain Cass



The city of Tunis from the top of the Africa Hotel.

GDP BY ORIGIN PROJECTIONS
(PERCENTAGE DISTRIBUTION)

	1971	1972	1973	1974	1975	1976	GROWTH RATE 1972-76
Agriculture & Fisheries	17.6	19.2	15.4	15.4	15.7	15.8	3.5
Mining	1.2	1.0	1.1	1.0	0.9	0.9	0.9
Petroleum	4.6	4.3	4.6	4.6	4.1	3.6	2.9
Manufacturing	8.3	9.4	9.1	9.6	10.1	10.6	11.8
Building & Public Works	6.3	6.1	7.3	7.9	7.6	7.5	12.9
Trnspt & Communications	5.7	5.6	5.9	5.7	5.7	5.8	5.5
Services	28.5	28.3	28.3	28.1	28.1	28.1	7.6
Govt wages & salaries	12.9	11.8	13.1	12.5	12.4	12.2	8.2
Energy & water	1.7	1.5	1.7	1.6	1.6	1.6	9.6
GDP at factor cost	86.8	87.2	86.5	86.4	86.2	86.1	7.4

Source: Ministère du Plan.

INDUSTRIAL PRODUCTION INDEX
(1966-1973: 1966=100)

	1966	1967	1968	1969	1970	1971	1972	1973 (10 months)
Manufacturing	100	112	116	114	124	135	150	151
Food Processing	100	119	110	89	109	131	152	157
Textiles	100	118	129	142	146	143	147	158
Leather & Shoes	100	93	100	115	120	121	121	119
Mech. & Elec. Industries	100	108	107	113	127	147	184	183
Bldg. Materials & Glass	100	101	111	120	119	125	133	124
Chemical Industries	100	114	125	121	133	143	150	147
Petroleum Refining	100	105	122	125	131	133	136	125
Paper	100	114	117	124	116	125	138	134
Mining	100	92	112	300	111	115	120	126
Crude Oil	100	145	207	240	269	266	258	253
Phosphates	100	90	107	83	96	101	108	116
Electricity, Gas	100	110	122	138	150	167	188	207
GENERAL INDEX	100	108	115	113	123	133	145	149

Source: Institute Nationale des Statistiques.

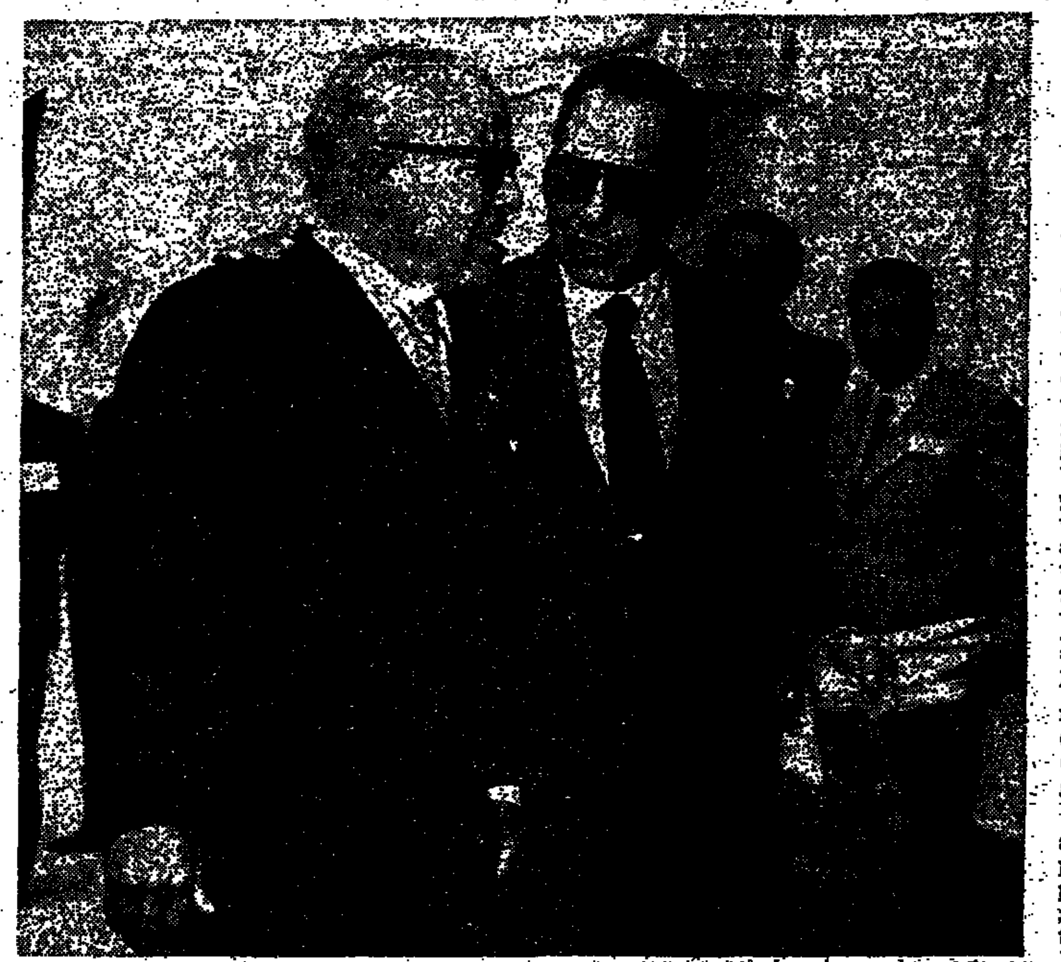
Tunisia's ruling and only political party, the Destourian Socialist Party, has recently gone in for some fairly hard self-criticism. While the pre-eminence of President Bourguiba is unchallenged as personification of national unity, his party is having to work hard to maintain the legitimacy of its position.

Political questions

"OU VA le Neo-Destour?" The question was recently posed in the form of a headline on the front cover of the party's weekly magazine which contained an exhaustive and, in some respects, surprisingly frank interview with M. Mohamed Sayah, director of the Destourian Socialist Party—Tunisia's ruling and only political party. The question is a particularly apt one at this point in Tunisia's development.

In recent months the DSP has been subjecting itself to some fairly rigorous self interrogation which culminated, recently, in the party cell conferences which consisted, essentially, of a series of often heated seminars in party cells across the country. These dialogues between the base and ruling elite of the party as well as all the other forms of more or less encouraged forms of soul-searching can be, and of course are, interpreted in two ways depending largely upon whether you are in or outside the relatively rigid and well-defined perimeters of the party structure.

The Party, and M. Sayah, see it as part of the natural development of a ruling party which is both a *parti pilote* and a *parti des masses*. It reflects, they argue, the DSP's desire to establish truly democratic machinery which can serve both as a means of legitimate expression for the masses as well as a forum in which the ideology of the party can be periodically reshaped and refined to adapt to Tunisia's changing needs.



Tunisia's President-for-life, Habib Bourguiba (left), pictured with Morocco's King Hassan at last year's Arab Summit in Rabat.

Conversion

The Party's opponents as well as the silent and sceptical minority within the Party itself see things somewhat differently and, not surprisingly, more cynically. They argue that the DSP's belated conversion to a form of democratic process (which, in any case, they say is merely an apology for democracy) signals two things. The first is that the Party is worried about opposition to its exclusivity and that the latest moves are designed to satisfy a growing desire for political diversification without actually meeting that desire. The second thing that these manoeuvres point to, the critics argue, is that apart from appeasing a desire for greater freedom of political expression, they also define very clearly the boundaries beyond which the Party is not willing to allow that freedom to extend.

In defence of their analysis the party's critics point to certain facts about political life in Tunisia which, they claim, is as clear an indication as any that M. Sayah and his colleagues have no intention of relinquishing the reins of power which they have so assiduously and, they concede, efficiently gathered into their hands. They point to the expulsion of the so-called Liberals from the party at its last congress in Monastir last September when a revolt by a group of government ministers and party members (some for differing reasons) marked the culmination of a protracted struggle for power at the summit. They point equally to the fact that there is no choice of candidates in either municipal or national elections (there are 112 candidates for 112 seats in the legislature), that the Press is more or less controlled and that the party itself (and this is a criticism also frequently voiced by many of the party's own, younger cadres) has no well-defined ideology in the way that, say, the Syrian or Iraqi Ba'ath can claim to have, save that of staying in power indefinitely.

Lastly, and perhaps crucially, they point to the recent elevation of President Bourguiba to President for life with parallel constitutional amendments which automatically allow for the succession to pass to the Prime Minister who may then serve what is left of his predecessor's term before submitting himself to re-election. This, in fact, assures the smooth and uninterrupted succession of power after the departure of President Bourguiba.

M. Sayah, a very urbane, very impressive and, one suspects, very ambitious idealogue and party manager, answers these points effortlessly. Since the convulsions of the aborted union with Libya and those of the Monastir congress, the DSP has taken a much firmer hold of things and appears a good deal surer of its destiny and the extent of its support within the country.

The party derives its unique position, says M. Sayah, from its "historical legitimacy" which is personified in Bourguiba and everything he has done for Tunisia and in the struggle which the party itself put up to wrest the country's independence from France as well as from reactionary forces within the country. In other words the Neo-Destour and Bourguiba have earned the right to rule the country.

Other parties, of course, are not constitutionally or legally forbidden though they need the approval of the Minister of the Interior to form. In any case, there does appear to be a certain acceptance of the DSP's historical argument — at least while Bourguiba, whose presence overshadows all else, lives. Clearly the argument that other parties, other than the Communist Party which is banned, could organise and find enough popular support to survive is hypothetical until put to the test. But even the supporters of such an idea are not entirely convinced that this would be the case, at any rate to make any significant difference to the political structure of the country. One of the problems, for them, is that the Neo-Destour is now so instutionalised and so closely identified with Bourguiba that to challenge the party would be to challenge Bourguiba which, of course, is unthinkable.

The other chief area of contention is whether a single, ruling party is any longer relevant to the needs of Tunisia where the standard of education and the level of political awareness is so much higher than almost anywhere else in the Arab world. One of the most striking aspects of Tunisia is its relaxed sense of freedom which even if superficial, is incompatible with anything remotely resembling a totalitarian state. The question is then, has Tunisia outgrown the Destourian Party and is it ready to move on to something more complex?

Though they do not put it quite so bluntly M. Sayah and senior ministers confronted with the task of implementing the Government's ambitious economic and social policies, essentially believe—and this does not appear to be entirely a facade—that the country cannot afford the luxury of a real parliamentary democracy. The argument, basically, is that Tunisia has a long way to go with limited resources and to divert any part of the national will to anything other than the wholehearted exploitation of those resources would be both wasteful and, in the long-run, counter-productive, since it would delay the economic viability on which the future of the party and the continued political stability of Tunisia depend.

In many respects the dilemma facing the Neo-Destour to-day is not so much a moral as practical one. There is little doubt that, under President Bourguiba's leadership, the Party has taken the country a long way along the road of progress. On the whole people are happy and, especially in the more politically active urban areas, conditions are very good.

Rethink

Perhaps the most striking achievements of the party has been in the field of social affairs. Its policies of equality for women, family planning, social security, health and employment have all had a marked effect on the mood of the people. The pressure for political freedom has, consequently and perhaps correspondingly, been reduced. Its historical and sentimental attraction apart, the Neo-Destour has astutely bought itself valuable time to adjust its role to the future.

Where there may be some doubt persists about its policies is in the tactical sense. By so clearly, almost ruthlessly, defining the limits, the frontiers of political activity and political legitimacy and by excluding all those who find themselves on the wrong side of those limits entirely from any form of legitimate political activity or expression, the party may be creating trouble for itself. For example, by expelling the Liberal group, the party may be sowing the seeds of its decline by creating a diffuse but possibly more determined opposition.

M. Sayah, who may also count among his many qualities the mastery of political tactics, believes not. He maintains that it is better and safer to know who your opponents are and where they stand in the situation in which the Neo-Destour finds itself than to have them in the heart of the structure, plotting and undermining it and, conceivably, eventually taking control by stealth. Only time will tell whether he, or those who differ from this appreciation of the tactics the party should adopt (though not the strategy) are right.

What is certainly true is that the Neo-Destour cannot afford to be complacent about its control of the situation. Tunisia is a country which, by choice, has close links with Europe. With so many tourists from the parliamentary democracies of the West arriving in Tunisia and Tunisians working abroad the filtering back of ideas which might erode the existing structure is not simply a theoretical possibility. The logic of the Neo-Destour's situation means that, if such a trend should manifest itself it can only do one of two things. It can either suppress it or concede ground to it, however gradually.

In many respects Tunisians are people who have taken their political freedom since independence for granted but have never chosen to put it to the test. Until the departure of Bourguiba, who towers above political differences and is genuinely a focal point of unity, they are unlikely to do so, accepting that the policies implemented in his name are best and that to challenge or reject them would be, in a sense, to challenge their own origins.

But what happens after President Bourguiba and whether the assumptions made by the party and the strategy on which those assumptions are based will remain valid and effective is a question which can only be answered when the time comes.

Alain Cass

In Tunisia's Fourth Plan, the country is investing some 75 per cent. more than in the last four-year period; industrial projects will get the lion's share. With the import-substitution phase now over, the emphasis will be on export industries.

Investment

DURING ITS Fourth Plan Tunisia is to invest D1.20bn.—*almost as much as it did in* the whole of the previous ten year period and 75 *per cent.* more than it invested under the last four year plan.

With the country's unemployment problem, the Government regards industrialisation as the key to its future development. Agriculture has been the traditional mainstay of the economy, employing about 65 per cent. of the working population. But its *future job potential is limited*—especially now that school leavers, with *relatively high* educational standards and correspondingly high job expectations, are pushing the unemployment total well above the official level of 15 per cent.

So that while the sum to be invested in the agricultural sector during the current Plan is some D79m. higher than in the previous Plan, the allocation of D177.7m. represents only 14.9 per cent. of total Plan investments. By far the greater share is being directed to the industrial *sector and to the development* of the infrastructure and services necessary to support it. As much as 53 per cent. of total investments, amounting to D633.8m., is to be invested in providing new services and infrastructure against D358.2m. during the Third Plan and 32 per cent. of the total, or D382.7m., is earmarked for industry, compared with D211.5m. in the previous Plan.

Energy

Of the total industrial allocation, D188.5m. *is being invested* in the energy sector, mainly to *finance* oil exploration and development work, as well as the expansion of refinery capacity and electricity supplies. Another D34m. is being spent on modernising the mining industry and bringing new phosphate deposits into production.

Manufacturing industry, which is given a high priority under the Plan, accounts for the remaining D160m., which is more than double the amount invested under the last Plan and represents 13.3 per cent. of total Fourth *Plan* investments. In the past manufactur*ing industry in Tunisia* has tended to concentrate on reducing imports by processing local raw materials (mainly foods) and generally meeting domestic demand. But the Government considers that this function has been largely fulfilled so new industries will need to be more export oriented.

By far the largest growth area is textiles—expected to average 20 per cent. a year during the current period. Consequently the largest share of manufacturing industry expenditure—about 25 per cent. or *D41m.—is being utilised here.* This industry is now regarded as the second most important manufacturing industry in Tunisia after food processing, and is expected to produce export earnings of some D26m. in 1976.

Food processing, meanwhile, *which includes forestry*, fisheries and livestock, receives an investment of D28.9m. under the Plan.

Another sector which warrants a sizeable investment —D33.6m. against D7.6m. under the previous Plan—are the metallurgical, mechanical and electrical industries. These are especially encouraged since they create employment which, like textile manufacturing, is par*ticularly* suitable *for* the Tunisian workforce, adept at light, intricate work. The sector includes the El Fouladh steel works and the car assembly plants of Stia, Simca and Sotumo as well as the small electrical and mechanical industries.

Fertilisers

The chemicals industry, another growth sector for which Tunisia has ambitious plans, has been allocated *D26.4m. This* sector is expected to earn valuable export earnings by stepping up processing of phosphate into fertilisers. *In time* Tunisia hopes to establish a *petrochemical complex producing* synthetic fibres and plastics.

Of the remaining industrial allocation, D14.1m. is destined for the paper and wood products industries — also considered a growth area—*while* the construction materials *industry receives D16.2m.* The latter industry is mainly concerned with cement manufacture. Tunisia currently produces some 650,000 tonnes a year of cement at Djebel Djeloud and Bizerta, but a new 700,000 tonnes a year plant is being built at Gabes at a cost of D31m. Another is planned for the north near the Algerian border.

The main target aimed for with all this investment in the annual growth rate of 9.6 per cent. and a contribution of 15.3 per cent. to the rise in Gross Industrial Product. In addition this sector is expected to account for 30.9 per cent. of exports and make a 33 per cent. contribution to their increase. The jobs target is set at 40,800 representing *over 34 per cent.* of all new jobs.

A particular departure in the financing of the current Plan is that there will be less dependence on foreign aid. The aim is to bring external financing down to some 24 per cent. compared with 40 per cent. under the previous Plan. Among aid and loans already committed is $46m. *from Saudi Arabia,* the UAE, Qatar and the Abu Dhabi Fund for Arab Economic Development as well as $15m. from the UN Development Programme.

National savings will have to play a much larger role—the Plan stipulates that savings must be capable of financing about 75 per cent. of the necessary investments. There are signs that they are already doing so. A short while ago the Prime Minister, Mr. Hedi *Nouira, announced that national* savings had increased by some 300 per cent. *with the result* that last year they accounted for 92 per cent. of total Tunisian investment.

At the *same* time the Plan places far greater emphasis on the private sector which is scheduled to provide 41 per cent. of the necessary finance, against a little over 33 per cent. during the previous Plan. This year, for instance, private sources are expected to account for 45 per cent. of the total invested in local industry and to represent 25 per cent. of GNP —a rise of 2 per cent. on the 1974 level.

And while Tunisia may be anxious to lessen its dependence on outside financing in the form of loans and aid, it is doing everything it can to attract private sources of foreign investment, especially in the export-*oriented manufacturing sector.* Tunisia asserts that as far as foreign ownership in the manufacturing sector is concerned, any permutation is possible—from joint ventures right through to 100 per cent. foreign ownership.

With foreign investors very much in mind, it passed the somewhat nondescriptly named April 1972 law which offers companies setting up in Tunisia solely for export, generous fiscal incentives. This law allows such companies exemption from income and other taxes, along with free entry of equipment, spare parts, raw materials and *any other goods necessary to* their export business.

Repatriation

Most of these concessions are available for a 20-year period, though full freedom from profits *tax is only allowed in the first* 10 years after which profits are subject to a reduced tax rate of 10 per cent. over the following 10 years. Added to this there are no restrictions on repatriation of earnings generated outside Tunisia.

Similar, though less generous concessions are available to companies producing partly for export, while foreign companies which opt for a joint venture with a Tunisian partner are also eligible for tax and other financial privileges.

For those which are more interested in gaining access to the domestic market financial incentives are covered by Law 74-74 (passed on August 3, 1974). This law provides approval procedures for any company wishing to set up in Tunisia and offers varying financial concessions such as tax exemption linked to the number of jobs created and location of the proposed project—Tunisia is promoting a policy of decen*tralisation* and *regional* equilibrium.

But before a foreign investor is allowed to set up production for the domestic market the Government has first to be convinced that the local market can support such an industry—in many cases the domestic market is already saturated. Tunsia is quite definitely *not* seeking haphazard foreign investment *purely to bump up its industrial* sector. The creation of jobs, *coupled* with the introduction of new industries and the technology and training opportunities which come with them are the main criteria.

It has adopted its enlightened approach to foreign investment in the knowledge that this is the only realistic way in which it can stimulate the investment it needs to establish a sound industrial base to secure future employment for its people. It regards the availability of labour, political stability and a key geographical position offering simultaneous entry into Europe, the Middle East and Africa as the main advantages which it offers foreign *industrialists.*

Overall control of industrial investment is centralised in the hands of the investment promo*tion agency, Agence de Promo*tion des Investissements (API) which was set up in March, 1973. It now acts as *sole* intermediary between the Tunisian administration and the investor, channelling all negotiations including project applications and approvals.

The creation of API has gone a long way towards eliminating bureaucratic red tape though there are inevitably still complaints of administrative bottlenecks and delays. Its success *can best be measured* by the number of projects which it has handled in the two years of its existence.

Since March, 1973, it has approved between 1,700 and 1,800 projects involving investments of D299m. ($600m.) and creating 61,500 new job opportunities. This means that, in theory at least, API has more than doubled the annual targets set by the Fourth Plan.

Of these approved projects, industries covered by the April 1972 Law totalled 135 and accounted for about a third of total investment and about 40 *per cent. of the jobs created.* Most were joint ventures by German, French, Dutch and Italian companies with a Tunisian partner, while the industries concerned *included* textiles, small mechanical industries, electronics and toys.

In practice, achievements have been a little less spectacular since approval does not *necessarily lead to implementa*tion. API puts its success rate at 80 per cent. in terms of the number of projects which have actually gone ahead and 60 per cent. in terms of investment.

Margaret Hughes

Girl working at the SOGITEX factory at Menzel Burguiba.

Mining is a well-established industry in Tunisia, but has been allowed to become rather run-down with mines inefficient and ill-equipped. The recent increase in world phosphate prices should however do much to revitalise this sector. Overseas earnings from phosphates multiplied last year and there are plans to boost output.

Boost for phosphates

JUST AS higher world prices pushed oil to the forefront of the Tunisian economy, so the recent surge in phosphate prices is helping the minerals industry to regain its traditional role as a major export earner—and, hopefully, to revitalise it.

Compared with oil, mining is a well-established industry in Tunisia though this, ironically, is now proving to be something of a handicap. For while world phosphate prices remained depressed, Tunisia's mining industry was allowed to run down, so that existing mines are largely outmoded and ill-equipped. With her mines operating well below peak efficiency Tunisia was thus unable to take full advantage of Morocco's moves in pushing up sharply the phosphate prices—from $15 a ton to $56.70 a ton in less than 18 months.

Even so export earnings from phosphate rock quadrupled last year to D46.84m. ($94m.) against D11.1m. in 1973 and an average of D14m. a year during the Third Plan. At the same time export earnings from phosphate products tripled to D49.48m., although the quantities exported were in both cases only marginally above the 1973 level. Thus although Tunisian phosphate production — 3.2m. tonnes last year and exports of 2.6m. tonnes—pales into insignificance alongside that of its Moroccan neighbour with an output of 20m. tonnes, it still represents a major source of foreign exchange earnings.

Phosphate production, not surprisingly perhaps, is controlled by the Government though the initial motivation for this was apparently more one of job preservation than any keen desire to keep mine earnings in Tunisian hands. For although historically mining, and phosphates in particular, has been one of the backbones of the economy, since the late 1960s the mines have been operated largely at a loss.

They have been hampered by outmoded equipment as well as extensive damage to mine and rail installations which occurred during the 1969 floods. There is the further drawback that Tunisia's reserves are generally low grade—ranging from 65 to 68 per cent. against Morocco's 72 per cent., which made exploitation less viable when world prices were low. In consequence investment has been neglected too—only D18m. during the 10-year period leading up to the end of the Third Plan. And out of a total allocation of D20m. set under the Third Plan only half of this was actually employed.

Facilities

But the sharp rise in world prices, mirrored by Tunisia's own export prices, should change all that. The Fourth Plan is to devote D34m. to the mining sector aiming at an 8 per cent. annual growth rate, with D25.7m. of this destined for the phosphate sector. It is being used to develop new mines and modernise existing facilities where mining of the low grades is now more feasible.

Existing phosphate operations are based in central Tunisia, mainly in the Gafsa region where there are four mines—Al Metlaoui, by far the largest with a peak output of 1.1m. tonnes a year but now nearing exhaustion, as is the Moulares mine. Then there are the Redegef and M'dilla mines, both of which are now being modernised.

A fifth mine is at Kalaa Djerda but is likely to be replaced by a new mine complex currently under study at Ste' Barba. The Moulares mine is already being replaced by a new mine in the M'rata uplands of Gafsa which has been built and equipped by Romanians. It produces around 1m. tonnes of phosphate entirely for export—about double the output of the former Moulares mine.

The chief new project being undertaken is the opening up of the Sehib deposits in the south, where reserves are put at 60m. tonnes. Preliminary work on this development began in 1970 and some D19.5m. or 57.1 per cent. of the phosphate sector's Plan allocation is being invested in this complex. The World Bank is also providing a loan of $23.3m.

The Sehib mine is scheduled to come into production in 1980 when, it is envisaged, it will be providing 1.6m. tonnes of phosphate for export and generating $40m. a year in foreign exchange earnings, as well as providing 1,200 new jobs.

Work currently in hand in the mining sector is aimed at stepping up output to 4.2m. tonnes this year, rising to 4.6m. tonnes in 1976 and to over 6m. tonnes in 1980 when Sehib is in operation. Although somewhat less ambitious than original forecasts this estimate is a good deal more realistic and therefore more likely to be attained. Meanwhile Tunisia claims to have enough phosphate reserves to last another 100 years.

But perhaps more important is Tunisia's decision to put more emphasis on local processing of phosphate rock into phosphoric acid and then fertilisers. Economy Minister Mr. Abdulaziz Lasram reckons that if Tunisia processed 6m. tonnes of phosphate rock locally into phosphoric acid this would generate, at current prices, exports of about D140m. which would more than cover the current trade deficit.

In the past what processing that there has been was centred at the Sfax works of SIAPE—Societe Industrielle d'Acide Phosphorique et d'Engrais—and NPK Engrais SAT. But these plants are now old and SIAPE especially (it was first set up 25 years ago) is technologically outmoded. They produce mainly triple superphosphate with a combined output of around 450,000 tonnes a year. The Fourth Plan foresees an expansion at SIAPE of 50,000 tonnes a year and one of 15,000 tonnes at NPK.

But most future developments will take place at the new ICM complex—Industries Chimiques Maghrebines. The ICM fertiliser complex was opened at Gabes in 1972 when Tunisia's first phosphoric acid unit came on stream with a rated capacity of 120,000 tonnes a year destined entirely for export (as well as 340,000 tonnes of sulphuric acid). In its first year of operation it produced 62,000 tonnes and generated export earnings of D680,000. Since then its output has been expanded, reaching 116,000 tonnes in 1974.

A second ICM unit was opened towards the end of last year. This has a rated capacity of 230,000 tonnes a year and is expected to lift overall production of phosphoric acid to 250,000 tonnes by the end of 1976. This extension will also produce some 70,000 tonnes a year of triple superphosphate which, with the expansion at SIAPE and NPK, will eventually bring triple superphosphate capacity up to 600,000 tonnes a year by 1976. Its sulphuric acid capacity is 500,000 tonnes a year.

Granulated

Tunisia also produces some hyperphosphate, but because it has had to switch production from the powdered form to the granulated product which is more acceptable on export markets, its current output is only around 10,000 tonnes a year. However, new plant is being installed which should lift granulated output to 90,000 tonnes a year. Compound fertiliser production is also to be stepped up from 18,000 to 40,000 tonnes.

Tunisia's longer term plans in this sector are rather more ambitious. Proposals now under consideration for implementation at an unspecified date include a nitrogenous/phosphate fertiliser complex using locally-mined phosphate and natural gas which it expects to have available from the new finds in the Gulf of Gabes.

There would be two units each producing 1,000 tonnes a day of phosphoric acid, one unit producing 910,000 tonnes a day of ammonia, an ammonium nitrate unit of 1,000 tonnes a day capacity, one binary NP fertiliser plant producing 1,000 tonnes a day of DAP 16-48-0 (diammonium phosphate) fertiliser for export. Intermediate units would include two sulphuric acid units each producing 1,500 tonnes a day, two phosphoric acid concentration units and an 800 tonnes a day nitric acid plant.

These projects would involve a *total* investment of over D110m. Mr. Lasram claims that he already has access to 45 per cent. of the required investment in the form of a cash participation by Abu Dhabi. Tunisia itself will supply the remainder but is looking for European interests to provide the necessary technology.

If ever realised, this massive complex is expected to provide 170,000 tonnes a year of phosphoric acid—all for export, 300,000 tonnes a year of DAP, again for export, and from a total ammonia production of 57,500 tonnes a year, some 40,000 tonnes free for export markets. Of the 330,000 tonnes a year of ammonium nitrate which would be produced a little less than half—150,000—would be available for export.

Impressive reading indeed—current planning has obviously been influenced by the recent dramatic rise in phosphate prices. But by the time these plants are put into operation the world market may well look rather different: it could be that Tunisia has already missed out on the phosphate boom.

Echoing events in the world oil market, there are already signs that demand for phosphate and phosphate fertilisers is beginning to fall off reflecting a growing resistance to high prices. Faced with this situation producers, particularly those which are developing countries and threatened by a cutback in foreign exchange earnings, are having to cut prices in an attempt to maintain export levels.

According to the Paris-based research organisation, Dynachim, international phosphate-based fertiliser prices are already down 33 per cent. on the beginning of the year and are expected to decline a further 10 per cent. over the coming months. Prices for some grades such as superphosphates, it claims, have dropped by as much as 50 per cent. from the "panic buying" period of 1974. Tunisia is understood to have been among those producers offering substantial discounts of around 15 per cent. on rock sales.

Surplus

The same organisation expects demand this year for phosphate rock to be about the same as 1974, at around 110m. tonnes, but supplies to be over 112m. tonnes. Thus phosphate has effectively moved overnight into a surplus situation, while some observers see this as just the beginning of a movement towards full fledged overcapacity.

Morocco as the chief exporter is holding firm on prices—and talking of further limited price rises in July. But even Morocco is said to be cutting back output of finished fertilisers and stockpiling increasing quantities of rock.

It is unlikely that phosphate producers will return to the doldrums of a few years ago when prices had remained virtually unchanged for decades. But the setback could be enough to put a damper on Tunisia's plans to revitalise its mining industry.

The new buoyancy of the phosphate market has in any case put Tunisia's other mineral operation in the shade—namely iron ore deposits at Jerissa and Tamera, lead mines in the north and her salt mines. But coming on stream this year will be a 12,000 tonnes a year aluminium fluoride plant aimed entirely at the export market using fluorspar from the Zaghouan mines—a new departure for Tunisia.

Margaret Hughes

While oil production is miniscule in the world context, oil earnings are vital to Tunisia's hopes for economic development. As well as searching for new deposits and exploitation of gas reserves, the Government intends to promote local processing for export.

Oil industry

TUNISIA'S OIL industry may have little impact on world markets, but to the country's economy it is vital.

Tunisian oil production accounts for as little as 0.3 per cent. of total Middle East output. Yet for the past five years oil has been the main source of foreign exchange earnings—accounting last year for 34.4 per cent. of exports. Then Tunisia has high hopes for natural gas fields discovered offshore a few weeks ago, which could provide a valuable new energy source and a booster for industrial development.

The importance of oil in the economy is largely, of course, the result of the surge in world prices which has transformed the earnings potential of Tunisia's fairly modest oil reserves. So that although the amount exported last year was virtually unchanged from the 1973 level of 3.7m. tonnes, earnings tripled to D136.9m. ($274m.).

Earnings

This sharp rise, along with a tripling of phosphate and olive oil earnings, was largely responsible for the doubling of Tunisian export earnings last year. Even so, because higher world prices for many other commodities lifted the country's import bill, Tunisia was still left with a trade deficit of D90.96m. So despite the considerable boost to the economy from oil sales, the Government is still anxious to stimulate new projects to generate additional earnings.

Economy Minister, Mr. Abdulaziz Lasram, sees the greatest potential in stepping up local processing. Then, he argues, Tunisia can export more profitable petrochemicals and fertilisers, rather than the raw materials which, on present estimates, are in any case in relatively limited supply.

Unlike its oil rich neigbours, Libya and Algeria, Tunisia produced only 4m. tonnes of oil last year. Its oil industry is young—the first find was made in 1964 when ENI struck oil at El Borma to the south, near the Algerian border. This first field was brought into production in 1966, since when the Government has exercised its right to take a 50 per cent. stake.

But although it was—until quite recently—the main domestic source of oil, El Borma has never been a big producer by world standards and is already past its peak. Output, which rose from an initial 624,505 tonnes a year to a peak of 3.6m. tonnes in 1972, is only expected to reach 1.7m. tonnes this year. By the end of 1974 El Borma had produced a total of 27m. tonnes of crude and even on the most optimistic forecasts will only remain productive for another 25 years. A particular drawback of El Borma is that it has been plagued by loss of pressure, though efforts are being made, with the help of Algerian oil experts, to overcome this problem.

Fortunately, there have been later finds. A second field was discovered in 1966 by Aquitaine some 125 miles north of El Borma at El Douleb and brought into production two years later, along with the smaller Tamesmida field. These fields, which are the only ones in which the Government does not have a 50 per cent. stake, are operated by Societe de Recherches et d'Exploitation des Petroles en Tunisie (SEREPT)—a joint venture between Aquitaine Tunisie, French and Tunisian private, as well as public, interests.

These fields are collectively expected to contribute some 155,000 tonnes to overall output this year, as is Sidi Litayem, the field discovered by CFP in 1971 and started up in 1972. Although the output target of this field has been set at 500,000 tonnes a year the highest annual production so far has been 200,000 tonnes and will be rather short of that in the current year.

But these are small-time compared with the promising Ashtart oil strike of 1971 in a concession held by Aquitaine and Elf/ERAP off the Gulf of Gabes near the Kerkenna Isles. This field, although more costly to develop simply because it is offshore and with a limited export value due to its high sulphur content, has proved to have more potential than first anticipated. Put into operation in December 1973, its output is expected to reach 2.5m. tonnes this year.

Offshore

A still more recent discovery, also offshore, by a consortium of Agip, Shell, Amoco and CFP, is the Isis field, at present capped, but which will probably be brought into production in 1976. These successful offshore discoveries have stimulated new interest in Tunisia's oil potential, accelerating exploration programmes both on and offshore.

Since 1970 oil exploration, until then relatively low key, in Tunisia, has been given a much higher priority by the Government. As well as stepping up its own investment in the oil sector the Government has introduced both fiscal and legal incentives to encourage participation by foreign oil groups. As a result the area covered by concessions has increased from 86,000 sq. kilometres in 1970 to 186,000 sq. kilometres in 1974 while drillings, which averaged five a year in the 1960s, had reached 29 a year by 1974. At the same time the amount invested by oil companies in exploration rose from D8m. in 1970 to D12m. in 1971 to D25m. in 1974.

By far the most active—and to date successful—in both oil and gas exploration have been the French and Italians, usually involving Aquitaine CFP and the various ENI offshoots. But among those currently holding prospecting licences are Shell, Conoco, Mobil, Gulf and Santa Fe.

Total oil output, which fell slightly last year, is expected to rise to 4.5m. tonnes this year. By 1980 Tunisia estimates it could be producing between 8m. and 10m. tons if its offshore finds come up to expectation.

Most of this will be exported, although Tunisia now intends to process much more of its crude before export. Last year 1.37m. tonnes was enough to meet domestic needs, rising to 1.4m. tonnes this year. Crude from El Borma is taken through a spur pipeline linking up with the pipeline from the Algerian fields of Zarzaitine and Edjeleh, to the El Skhirra terminal on the Gulf of Gabes. Tunisia's other fields are also linked by pipeline with the terminal. From there it is supplied, at a third of world prices,

CONTINUED ON NEXT PAGE

Apart from years of war, pestilence and flood, Tunisia has enjoyed a remarkable growth in its tourist industry since 1961. As well as having a beautiful country with a rich cultural heritage, the industry has been generally well managed.

Tourism growth

TUNISIA'S tourist industry is a young and vigorous one. Endowed with many of the qualities which, increasingly, appear to determine the demand in what has become a fiercely and for some a fatally competitive industry, Tunisia has capitalised with considerable success on recent world trends.

Growth rates have been remarkable by world standards. In the years from 1961-1973 total arrivals grew at a rate of very nearly 30 per cent. a year while visitor bednights averaged an annual growth rate of 32 per cent. which, compared with the rest of the Mediterranean, is three times as high. This cummulative growth is all the more remarkable for the fact that, in between the crests, the growth curve has manifested some steep declines due, largely, to exceptional factors such as the 1967 and 1973 Middle East wars, general political uncertainty and the floods and the cholera epidemic of 1969 and 1970.

Part of Tunis' Souk.

Self-critical

There are several reasons for this growth—partly natural, partly managerial. Tunisia is a place of great beauty. Its coastline has some fine beaches while, in the south of the country, the desert and its oasis are an equally important though not quite so well exploited attraction. Tunisia also has a rich cultural heritage which can compete effectively with those of its immediate neighbours. Equally the industry is generally well managed by a new administration which appears, on the one hand, to have judged the nature of its market reasonably well and, on the other, is now sufficiently self-critical to adapt its investment and development programmes to the needs of a changing market.

A high level of administrative expertise is vital in this industry which accounts for the largest single contribution to Tunisia's foreign exchange earnings. Having risen from D1.5m. in 1961 to D67.4m. in 1972 (contributing some 21.4 per cent. to foreign exchange earnings in that year) they stood at D80.87m. ($183.6m.) in 1974 which, after a bad year in 1973, was essentially a year of stabilisation in preparation for the current year when receipts are expected to rise by some 20 per cent.

These, however, are gross receipts which do not take into account the considerable volume of imported goods, services and capital equipment required for maintenance and upkeep. Net receipts in 1972 were estimated to have risen to 70 per cent. of the gross (DM67.4m.) from less than 50 per cent. ten years ago. One of the chief problems which makes tourism such an expensive industry to run is the serious lack of the necessary infrastructure and support services. But this is steadily improving and, given the right level of investment for a sustained period, should produce a situation where the industry's net contribution to the balance of payments is of a much higher order.

Investment in tourism (both State and private) as well as investment in allied services and the necessary support infrastructure, is considerable (as a proportion of total fixed investment it has hovered around 12 per cent. since 1964) and is expected to reach D148.8m. by 1976 of which D100m. is expected to come from the private sector.

Visitors to Tunisia are mostly from Europe with West Germany (21.7 per cent. of the total) topping the list, France (19.5) second and the U.K. third with 18.1 per cent. and rising. Visitors are, in the main, middle-income and, with an average length of stay of around ten days largely arrive by air with a high preponderance of tour-operator, charter flight trade. This is an important statistic because it has determined (or has been determined possibly) by the nature of the holidays offered in Tunisia. These tend to be middle-range and very cost-conscious with a heavy accent on the economies of scale and the maximisation of seasonal changes in demand. On the whole tourism is concentrated in the summer months and there is some evidence to indicate that there exists a large, unexploited potential in winter tourism drawn among middle-income Europeans who, looking for the sun, would find the traditional winter resorts of the Caribbean and East Africa prohibitively expensive.

One of the results of the significant increase both in tourist arrivals and the number of hotels which have been constructed (the number of beds rose from 4,000 in 1961 to around 50,000 in 1973) has been that other holiday attractions were seriously neglected, on the one hand, and that the growth in the necessary skilled manpower and infrastructural services have simply not been able to keep up with the pace.

Anomaly

This is something which officials are aware of and some effort is being made in the context of the current Fourth Plan (1973-76) and the forthcoming Fifth Plan to remedy an anomaly which may have been marginally responsible for the recent downturn in tourism activity.

Under the direction of the Office National du Tourism et du Thermalism (ONTT), which comes under the wing of the Ministry of the Economy, several new projects aimed at increasing the competitiveness of Tunisian tourism and improving the quality of services are being undertaken.

Under the Fourth Plan four new tourism schools are planned plus three new training centres to add to the existing three and a greater effort is to be made to provide staff destined for senior jobs with training abroad. At present, according to ONTT, there is a deficit of some 1,000 hotel staff at all levels and, clearly, if the objectives of increasing beds available to nearly 84,000 to cope with the expected 1.3m. visitors by 1976 are to be achieved, then a considerable effort needs to be made.

Services

So far as infrastructure is concerned—water, transport, foodstuffs and consumer goods—the problem is, perhaps, more general and needs to be set against the wider backcloth of the integrated development of the rest of the economy. This problem, along with that of broadening the appeal of Tunisian tourism by providing a greater variety of services, should really be taken together and the signs are that the ONTT is clearly aware of the need for a coherent development of the industry as a whole. Plans for the development of casinos, leisure centres, golf clubs and a greater variety of tours within the country are currently under study and the Government is confident that these can be grafted on to existing programmes.

Projected Government investments in the Fourth Plan were D48.8m. (with D3.4m. for leisure infrastructure, D4.7m. for promotion and marketing and D28m. for infrastructure as a whole), though this is likely to be exceeded following the reassessment of its general strategy.

A major effort is also going to be made aimed at foreign capital markets to provide capital both for continued hotel investment (the larger requirements of which are beyond the local market partly, in fact, due to the relatively uncompetitive terms of credit offered) and to give the necessary financial impetus to the infrastructural programme, whose implementation should assure Tunisian tourism of continued growth and the Tunisian exchequer of a growing supply of valuable hard currency.

Alain Cass

TUNISIA'S TOURISM GROWTH

	1962	1972	1973	1974
Hotels	74	241	254	260
Beds	4,077	47,824	54,617	56,292
Direct employment	1,630	19,130	21,847	22,517
Visitors	52,752	780,350	721,897	716,003
Bednights	395,777	6.8m.	5.8m.	5.6m.
Average stay (days)	7.5	8.7	8.1	7.9
Receipts	D1.98m.	D68.4m.	D72.4m.	D80.9m.

Oil

CONTINUED FROM PREVIOUS PAGE

Tunisia's only refinery at Bizerta for refining to supply the domestic market—refining for domestic needs is subsidised by the government to the tune of around D50m.

The Bizerta refinery, which was built by the ENI offshoot Snam Progetti in the early 1960s, has a throughput of 1.2m. tonnes, processing some grades imported from the Middle East as well as domestic crude. It is operated by Société Tuniso Italienne de Raffinage (STIR). Under the Fourth Plan its capacity is to be nearly doubled, while a second refinery with an eventual capacity of 10m. to 12m. tonnes a year is to be built at Gabes. It is expected to come on stream in 1978 when it will probably have a capacity of 3m. tonnes a year.

Most of the financing for this project, estimated at D70m., is to be provided by the Government which has set aside D188.5m. from its total Plan allocation for industry of D382.7m. (against D211m. in the Third Plan) for development of the energy sector. Some D64.1m. of this is to be spent on exploration, D22.7m. on developing existing wells and D23.5m. on expanding refining capacity.

The Gabes refinery is intended eventually to form the basis of a new D100m. petrochemical complex. By 1978/79 Tunisia expects to have some 1m. tonnes of naphtha available from Gabes. This will be processed in a steam cracking unit to be built at the Gabes complex to produce 300,000 tonnes a year of ethylene, together with propylene, butane and other by-products.

Some 145,000 tonnes of ethylene will then be used as a feedstock for a proposed 140,000 tonnes a year low density polyethylene unit. The remaining ethylene produced will be exported.

The second stage of the chemicals complex will comprise a pyrolysis unit to produce benzene which, with ethylene, will be used for the production of styrene. This will be further processed into polystyrene to form with ethylene the core of a synthetic fibres operation. Tunisia plans to invest a further D17m. in constructing a 7,500 tonnes a year polyester unit and an 8,500 tonnes a year plant for the production of acrylic fibres, with 9,500 tonnes a year of the combined output destined for export markets.

Tunisia has few illusions about joining the big oil producers club, but at the same time is clearly intent on making the most of what oil it does have. The main question mark hanging over its ambitious petrochemical plans is the time taken to put them into effect—so far there are no projected completion dates.

Much will obviously depend on the finance available and so, indirectly, the course of future oil earnings. World demand has already fallen back sharply since the quadrupling of prices. And Mideast producers, led by the Shah of Iran are now talking of a further 25 per cent. increase later this year.

In any event Tunisians are currently rather more excited by the prospect of a new energy source—natural gas. This follows the discovery a few weeks ago by Aquitaine Tunisie and ELF/ERAP of three offshore gas fields near the Kerkennah Isles in the Gulf of Gabes—Miskar, Elyssa and Azdrubal, all names taken from Punic mythology.

So far only one well has been drilled in each field so that accurate assessments are difficult, but first estimates put gas reserves at 60bn. cubic metres. This compares with 2,000bn. cubic metres of Algeria's R'Mel field, but looks rather better set against Tunisia's former oil reserves of around 8bn. cubic metres.

There is a small field at Djebel Abderrahmane brought into production by SEREPT in 1954 and supplying some 10m. cubic metres annually to the Tunis area: gas has also been discovered at the Douleb oil field by SEREPT, this time in partnership with Aquitaine Tunisie. El Borma also contains gas and a project is now under way to raise the capacity of the gas pipe running to the Gabes complex to 300m. cubic metres a year.

The offshore oil fields also contain significant quantities of gas but the Isis field has yet to be brought into production, while at Ashtart some 200m. cubic metres of gas is burnt off each year. For the moment it is not economically feasible to bring the gas onshore and this will be the main problem in developing the much larger new fields. In the first place development work will cost two to four times as much as it would onshore, while a gas pipeline or other means of transport will have to be constructed from scratch.

But if the new fields come up to expectations it seems almost certain that they will be developed. The main attraction will be the energy available for the new industries which Tunisia is so anxious to set up—the gas would be particularly valuable for sponge iron projects such as the $55m. venture to be undertaken at Gabes in a three-way deal involving West German, Japanese and Brazilian interests. The gas would also provide a domestic source of ammonia for the compound fertiliser production which Tunisia aims to enter. Mr. Lasram considers that the new gas deposits are large enough to meet domestic needs for at least 20 years.

The new fields would supplement the supplies which Tunisia has secured starting in 1978 from the pipeline crossing Tunisia carrying Algerian gas to Italy. These supplies could, however, be in jeopardy, or at least subject to delay, because Algeria and Italy are in dispute over the price to be paid for the gas—so that Tunisia's new offshore finds may well prove more vital than first supposed.

Margaret Hughes

Sogitex's factory at Bir Kassaa

Long periods of drought are a constant headache for the farmer but in a country where half the population lives on the land there is concern that agriculture's contribution to the national economy has fallen below 20 per cent. and new efforts are being made to boost productivity.

Agriculture

HALF THE population of Tunisia lives on the land. Recently its contribution to the national income has shrunk to less than 20 per cent. of the total, and this proportion appears to be shrinking even though the agricultural population is increasing steadily. At the same time climatic conditions are erratic giving rise to long, dry spells (such as the one experienced from 1967 to 1969) which can literally make or break agricultural output in any given year. This, in turn, has a central effect upon the overall performance of the economy as a whole.

Like most developing countries where agriculture has played a significant if not a central role, Tunisia has, because of these conditions, been trying hard to maximise its agricultural return while at the same time reducing its dependance on a sector whose performance is, at best, unpredictable.

The country divides more or less naturally into three broad areas for the purposes of agricultural potential. The area to the north of the Dorsal Chain contains the most fertile lands; indeed, the only ones capable of supporting a range of rainfed crops and pastures, with an average rainfall above 400mm.

These areas produce virtually all the country's citrus fruits and grapes, two-thirds of its cereals, two-thirds of vegetables and milk and over a third of the livestock and fish. The central area, roughly situated between the Dorsal Chain and the Gafsa range to the south, has an average rainfall of around half that of the more fertile areas to the north and supports mostly the raising of sheep and goats, though not on a very intensive level, and tree crops mostly in the form of olives. There is also some cereal production. Farther south, in the third of the three broad areas, where rainfall is below 200 mm., vegetables, date palms and olives are grown in oases. Here again the margin between success and failure depends on as little as a few millimetres of rain.

The problem of rain is of course central and the Tunisian farmer, for many years neglected by the central government, has tried to overcome it through a primitive and only half-effective system of irrigation channels and individual wells. The point is that too much water can be as bad as too little. A bad flood or a series of rainstorms at harvest time can prove disastrous and the problem of soil erosion, for example, is as serious as that of water conservation.

Irrigation

Over the last decade or so significant amounts of money have been poured into irrigation works though, for the time being, the total irrigated acreage is limited to no more than 80,000 ha. out of an overall acreage under cultivation of 4.2m. ha.

Recent studies suggest that the maximum area which could be converted to irrigated land is up to 200,000 ha. most of which is located in the northern area of the country. In fact, since independence the volume of irrigable land has only increased by 45,000 ha. though much of this extra acreage is technically irrigable thanks only to large and costly hydraulic investment by the Government. In 1975 some D10m. has been set aside for further such projects. In the nine years to 1971 expenditure was D80.6m., of which three quarters was by the State, D15.7m. from foreign aid and D2.1m. from private sources. In all, irrigation has absorbed over 40 per cent. of public investment in agriculture.

Other possible sources of water are the underground resources of the Sahara, and it is contended that a further 10,000 ha. could be exploited if those in the southern Sahara were tapped.

Meanwhile, a number of small and medium size dams are being constructed with outside aid to overcome, basically, the fact that there is only one all year round waterway in the country—the Medjerda. The Medjerda is a good example of the way in which the water supply can veer from one extreme to the other. Its flow ranges from 400 cubic metres in the winter to less than 10 cubic metres in the summer. The other water-fed basin, the Zouroud, also registers similar extremes of behaviour, running dry for most of the year but during heavy rains rising to flood tide and literally cutting off villages and large towns interlaced in the complex web of its tributaries.

Dams

Following the recent visit to Tunisia of Mr. Alexei Kosygin, the Soviet Prime Minister, two new dams are planned with Russian assistance and finance and a third financed by the Abu Dhabi Fund for Arab Economic Development.

One of the chief problems, however, which the Tunisian Government is urgently trying to sort out is the continuing and, for a country with relatively limited agricultural resources, very serious under-utilisation of water resources and therefore of land.

According to studies done by the Ministere du Plan (in 1973) less than one-quarter of the water available from large dams (191m. cubic metres) is used, only half of that from deep wells though the proportion for pumped water, artesian wells and treated sewerage is considerable better with an average utilisation factor of 98.5 per cent. Chiefly this appears to be due to a lack of experience among farmers, a lack of funds for smaller farmers and labour for bigger landowners, an inadequate infrastructure and an unwieldy land tenure system.

Tunisia is now, with the help of the World Bank and others, making a major effort to make improvements, maximise agricultural production and halt the debilitating rural exodus towards the bright lights of Tunis and the coastal towns. The aim in the medium-term is to increase agriculture's share of GDP from the existing 18 per cent. to 22 per cent. to around 30 per cent. This must be regarded as a vital priority in the effort to mop up the vast under-employment in the sector.

It is hoped that the olive oil sector which has happily turned in record results recently to swell the Treasury's coffers will increase its potential even further adding 20m. trees to the existing 50m. with a capacity of 250,000 or even 300,000 tonnes to Tunisia the biggest olive oil exporter.

Investment as a whole in agriculture has been fairly intensive with actual outlays reaching, overall, around 80 per cent. of planned investment as outlined in the Perspectives Decennales. In some areas, chiefly the planting of olive trees, fisheries and forestation and erosion control, investment has handsomely surpassed targets. In machinery and equipment, however, only D43m. of a projected D63m. investment was possible and this is one of the fields where the Government can be expected to direct much of its efforts in the near future as its drive to industrialise agricultural production gets under way.

Agriculture in Tunisia is for home consumption with no more than 15 or 20 per cent. of production going for export. All the olive oil production is exported, citrus fruits and vegetables, some wine, and about D4m. worth of food industry products. One of the current year's more remarkable achievements is that Tunisia was able to grow enough wheat to satisfy all its home demand.

The market at Gabes.

The actual value of exports from 1960 to the start of the seventies has not increased and hovers at around D30m. a year while the value of imports has risen from an average of D21.7m. in 1960-62 to an average of D41.5m. from 1969-71. Clearly both are determined largely by the level of home consumption and since the major part of food consumption is locally-produced these levels may not necessarily change drastically. This may not be a bad thing in the long run, especially as agricultural exports, though a small proportion of overall production, form a significant part of total export and foreign exchange earnings.

The Fourth Plan aims at increased agricultural productivity. There is clearly a need for greater investment in extension services and infrastructural development. The training of farmers and advisers has been impressive and there are 700 agricultural graduates, some 5,000 qualified technicians and at least a further 30,000 who have received vocational training. But further significant improvements in this area must accompany any planned higher investment, if the higher growth rates which the administration is aiming at are to be achieved.

Alain Cass

AGRICULTURAL IMPORTS AND EXPORTS BY SECTOR

	Exports				Imports			
	1960–62*		1969–71*		1960–62*		1969–71*	
	m.D.	%	m.D.	%	m.D.	%	m.D.	%
Livestock products	0.9	3	2.1	6	1.6	7	5.6	13
Fish	0.3	1	0.9	3	—	—	0.1	—
Cereals	3.3	11	0.5	1	9.8	45	15.3	37
Fruits/vegetables	3.3	11	6.6	20	1.2	6	1.3	3
Edible oils/fats	9.6	31	14.7	44	0.3	1	7.6	18
Wine	7.7	25	3.1	9	—	—	—	—
Food industry	3.2	10	3.8	11	0.8	4	0.9	2
Sugar	—	—	—	—	3.1	14	4.8	12
Spices, coffee, etc.	—	—	—	—	2.5	12	3.1	8
Other	2.5	8	1.9	6	2.4	11	2.8	7
Total	30.8	100	33.6	100	21.7	100	41.5	100

* Annual Averages

Source: Ministry of Planning

Why the record industry is in a spin

BY ANTONY THORNCROFT

THE RECORD industry lives off illusions. Experience suggests that any one of the 45 singles released in the past week could, against all reason, become a hit. Look at the current best seller, Whispering Grass, an old war time song revived by EMI and sung by television personalities Windsor Davies and Don Estelle. It is well on its way to selling 300,000 copies and considerably improving the profitability of the largest record company in the country.

But another illusion—that the record industry is recession proof—is being sorely tested. Just as in the austere 1940s the public flocked to the cinema regardless, the assumption was that, whatever happened to the economy, records, with their ability to lift the spirits would continue to sell well. It has not worked out quite like that.

The record (and tapes) industry was probably misled by its success in recent years, especially 1973 when sales rose by almost a quarter to around £138m. Last year there was a slow-down in growth but turnover still touched £160m. This year the higher retail prices will push up the total take, but real growth may be negligible and many companies will see smaller profits.

Redundancies

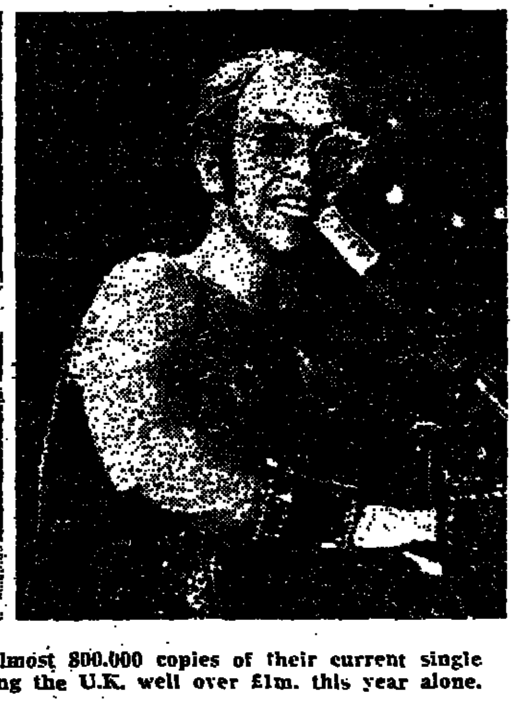
There have been redundancies among the major companies while some of the smaller independents, which have proliferated in recent years, are allowing themselves to be taken over. Last week Granada acquired Transatlantic, one of the more prosperous of the parvenus, while B. and C. Charisma has been split, with the weaker side, B. and C., going to Saga, and Charisma retaining its independence but now licensing its records to Phonogram, the Philips-Siemens subsidiary.

It may well be that, rather than the public's being disenchanted with buying records, the retailers, worried about cash flow, are ordering less stock. But this is of little comfort to record companies, hit by rising costs and concerned that recent—and proposed—price rises will deter purchasers in what is very much an impulse market.

There is a ray of hope: the public frenzy surrounding the Bay City Rollers. Their last single remained in first place in the best-seller charts for six weeks, the longest time that any record has held that position for four years. In all it is approaching sales of 800,000, a very high figure these days for a number one (you can reach the top and sell less than 250,000 copies). But commercially more satisfying for the group's record label, Bell, is that fact that their album has sold 300,000 copies in two months.

Merchandise

This kind of off-take is reminiscent of the Beatles and there are optimists in the record industry that see the Bay City Rollers giving record sales generally the kind of fillip that the Beatles set in motion. In one area—merchandise, from scarves to trousers, sponsored by the group—the Rollers have stimulated sales barely scratched by the Beatles. Artistes Services, the company that has the franchise for the Bay City Rollers (as well as the Osmonds), expects to sell £1m. worth of bits and pieces this year, with the group taking a 5 per cent. royalty.

The Bay City Rollers (left) represent a ray of hope for the industry with almost 800,000 copies of their current single sold. Elton John (right) makes sure most of his earnings stay abroad, costing the U.K. well over £1m. this year alone.

Perhaps the most distinctive feature of the Bay City Rollers is that they record for Bell, an American company owned by Columbia Pictures. Only a handful of people works for Bell in London. Yet for the past two years, through artists like Gary Glitter and Showaddywaddy, it has sold more singles than any other record company. Bell epitomises the transformation in the record industry in recent years—the big companies like EMI, Decca and Pye remain supreme in the manufacture and distribution of records but most of the leading artists and producers work quite independently.

So, for a price, EMI presses records and distributes them for Bell, but the smaller operation creates the sounds and looks after the actual selling. This removes EMI from any risk but it does mean that its profit margin is less. Another common practice is a licensing agreement whereby EMI, say, buys the original tapes from the production company and is responsible for the manufacture, distribution and selling.

Licensing deals with companies like Tamla-Motown, MCA, Elektra-Asylum and RAK are very important to EMI, but it has just lost the Tamla business and Elektra-Asylum comes up for renewal later in the year. Fortunately for EMI it still has Paul McCartney under contract and a new McCartney album is coming out soon, with an initial order of 150,000. McCartney, probably, does not produce much profit these days for EMI, but he is a useful heavyweight with which to persuade retailers to stock extra EMI records.

Although the major companies will continue to rely on outsiders for material (at least in the pop field) they may actually strengthen their position this year because of the financial traumas affecting the industry through the hiccup in sales. Some of the independents over-extended themselves, especially in establishing large sales forces. Like Charisma, they will retrench and lean on the majors again.

And yet Island, probably the most successful of the independents, is pushing ahead with its final step towards autonomy. Later this month it starts pressing its own records. It will have an eventual capacity of 6.5m. albums a year but will still place orders elsewhere, and expects other record companies to use its facilities. For one of the secrets of success in this industry is to spread your options. Island, for example, could now look after all its own distribution but it prefers to let EMI look after around 40 per cent.

Island has not suffered as much as some other companies this year because most of its turnover comes from albums, and it is the singles market that has fallen away most sharply. On the surface a downturn in single sales is not too worrying, since in value terms they are worth not much more than £20m. a year against albums' £100m. But a hit single for an artist is the quickest way to stimulate album sales, and seeing records high in the charts spreads a warm glow throughout a record company. That is why CBS and Polydor, well-established album companies, have put considerable effort into singles sales this year, with success.

The other reason why Island can push ahead with its £450,000 investment in plant is that 70 per cent of its income is from overseas. This is the other great rule for record success. A company can produce a string of best selling singles in its first year of existence and yet stay worried because it has yet to break artists overseas. As Robin Britten, manager of the Hollies, who has just set up his own record label, RCB, points out, the price differentials mean that every record sold in West Germany is worth two and a half times the same record sold here.

Dick James of DJM, who has Elton John, the world's best selling album artist on his books, reckons he has got it about right with 85 per cent. of his revenue found abroad. In the U.S. the latest Elton John album had orders for 1m. copies before it reached the shops, and became the first record to go straight to the top of the album charts. All told Elton John will sell up to 15m. albums this year world-wide, which, at retail value, will be worth over £50m.

Unfortunately, little of this money will come back to the U.K. For many artists, song writers, and even record producers are being driven abroad by Britain's very high taxation levels. Elton John has not yet completely abandoned the U.K. as the Rolling Stones have, but he makes sure that most of his earnings accrue overseas. The British Government must lose well over £1m. this year from Elton John alone through its tough tax policy and many in the record industry see the British influence over international pop music, a domination which brings almost £100m. a year back to this country in royalties and taxable income, threatened by our penal tax rates.

But with nine out of ten records released doomed for failure the penalties of success are not everyone's problem. This year could see widely differing experiences for the companies in what has become an extremely competitive industry. Some are putting their faith in heavy advertising campaigns on television. Thus Phonogram has done very well recently by advertising a Stylistics album on the screen. This year the television contractors should receive about £3.5m. for promoting records.

Price war

Other companies have started to wheel and deal with the retail trade. The control of the record retailer has weakened, and organisations like Record Merchandisers, owned by EMI, Decca, Pye, and the Polydor group, have succeeded in introducing albums into a much broader range of outlets on a sale and return basis. Now groups like Boots, W. H. Smith and F. W. Woolworth account for over half the record retailing business and, by indulging in a competitive price war, have helped to maintain the overall level of record sales above that of last year.

It will do the record industry no harm to work harder for its money, and it is about time the pendulum swung back slightly in favour of the big international companies, who see the U.K. as the spawning ground for talent but appreciate that most of the profits lie in North America, which accounts for well over 50 per cent. of world record sales. Some of the independents will have to be lucky or efficient to survive, but they will keep going in the awareness that, in this unpredictable business, they might have under contract the group that will take over from the Bay City Rollers in the affections of the country's teenage girls in 1976.

Letters to the Editor

Attract foreign investment

From the Group Economist, Ocean Transport and Trading.

Sir,—The National Institute has forecast a continuing decline for sterling and there are journalists who advocate devaluation as part of a positive policy to encourage exports. But let us consider what the effect of a lower-value pound would be on a workable counter-inflation policy and the more general need to strengthen the British economy.

Inflation is caused by an excess of demand over supply. The cure is twofold: to reduce demand by incomes policy and public expenditure cuts, and to raise supply by greater use of existing resources and a policy which encourages investment. The latter is the key to any medium-term policy of "regenerating" British industry. But investment must be financed by real savings.

To the extent that devaluation reduces real incomes through the higher cost of imported goods savings will decline if people attempt to maintain real spending: this declining level of savings will finance an even lower level of real investment to the extent that investment goods must be imported. (This leaves aside the possibility that domestic prices and money incomes will rise to the extent of the devaluation, since this would simply frustrate the purpose of devaluing and lead to accelerating inflation.)

Shortfall

The ensuing shortfall in real savings relative to investment has to be made up by borrowing abroad. But the saving and eventual repayment of international debt and profits remitted on foreign investment in this country claim an increasing share of our domestic output to the extent that the pound devalues relative to the foreign currencies in which the borrowing is incurred.

We need more foreign investment anyway, since with present growth rates our economy simply does not generate sufficient savings to finance the levels of investment achieved in some of our EEC partners. One of the mistakes of postwar policy, it seems to me, has been too much emphasis on balancing the current account. But we can't have both export and investment increases and an improving balance of trade to the levels deemed desirable for each of these things seen in isolation.

Medium-term policy should be directed towards encouraging industrial investment not just by domestic enterprise but by as many foreign companies as we can attract here. (There may be undesirable features of multinational business which we should try to put right but let us stop castigating it per se.) The resultant inflows of foreign capital will help to strengthen the pound and raise living standards in this country.

Short term policy should be directed to marshalling all the international funds possible to support the pound at its present level. If sterling continues to slide, it could develop into an uncontrollable plunge into nothingness. Even a controlled decline in sterling seems likely to regenerate import cost pressures to the point where incomes restraint is impossible. We won't get to the stage of hyperinflation. But we could get so close to it next year that the rescue processes would involve a total dictation of our domestic policies by international creditors and restrictions on civil liberties in this country, warnings about which people are still wont to dismiss as foolish alarmism.

R. E. T. Long.
India Buildings,
Liverpool.

Unparalleled opportunity

From Mr. P. Franklin.

Sir,—Whatever the causes of inflation, several economic facts appear to be in less dispute. It can be convincingly argued, for example, that the share of national income going in wages has been continuously increasing since 1945. One estimate shows pre-tax profits as a percentage of income from employment plus these profits themselves, to have fallen from 38 per cent. in 1950 to 26 per cent. in 1970. And it can also be easily shown that the rate of growth of GDP in the U.K. has consistently lagged behind those of its European competitors, as has gross fixed investment.

Currently, perhaps, the economy is experiencing even less happy conditions than its competitors, and is suffering in ways and degrees not recently seen. Falling investment intentions, increasing unemployment and under-utilisation of plant and capacity, are mere symptoms of this crisis, and indicative of a more general malaise—a lack of confidence, and a preference for less risky commercial ventures.

These problems and this lack of confidence, however, and the indictment that we have not invested sufficiently, have been turned by some into an indictment of the capitalist system itself. That is, if entrepreneurs are unable or unwilling to invest and re-invest, then it is argued that the government should.

A mere increase in the quantity of investment, however, is unlikely to improve significantly our economic performance, for it is the quality and strategy of investment, as well as its volume which is important and which must be more seriously considered.

For these reasons, the present slump provides management, government and organised labour with an almost unparalleled opportunity in effecting a restructuring of British industry, in that the present investment impasse should not be viewed entirely negatively and with dismay, but used by management and government, in concert, to reconsider priorities and economic objectives, industry by industry, sector by sector, and for the economy as a whole.

Some may accuse this approach of being too laissez-faire, or even naive: unemployment, however short-lived, either of labour or capital, being a social waste of scarce economic resources. But to employ either for their own sakes has surely been proven as barren and equally wasteful—overmanning itself resulting in uncompetitive goods, conflict between management and labour, and a pool of disguised unemployment.

Future investment then should make maximum and best use of the increased pool of labour and capital that could be available if government and industry and organised labour were more effective in increasing the mobility of these productive resources. But such a change in attitude concerning a more openly logical or expressed direction of productive factors, and investment, is hardly likely to occur overnight, although such a concerted approach to investment by government, industry and the financial institutions would appear in tune with some of the ideas presented.

It is encouraging then that the institutions have currently been reconsidering their role and involvement in the management of industry. The size and scope of some of the recent rights issues, however, lead one to question the extent to which the institutions have been fulfilling the exacting and difficult objectives laid out above. For example, as suppliers of much needed finance, the institutions have again been faultless. But in their enthusiasm also to overcome inflation by moving large quantities of capital from cash into real assets (stocks), the institutions have perhaps, not fully met other, equally important objectives—the direction of funds into more optimal investment programmes.

Guardians

In a society and economy where high rates of inflation seem endemic and profit acrimonious, however, such traditional investment attitudes are understandable. But, if industry is independently to meet the challenge of the near future, and not be pre-empted by closer direct control by government of its activities, then capital investment must be stimulated and influenced by an even more critical attitude on the part of the institutions: acting, perhaps, as guardians of capitalism itself.

The opportunity for a general and fundamental critical re-appraisal of our society's priorities, objectives and methods is now available. Short term and partial political and economic expediency (of the lame-duck type) can be subordinated to longer and more general considerations affecting society and the economy. For example, a national reconstruction plan. And the purposive evolution of a more exhaustive social contract between the three centres of power also seems possible if one takes an optimistic view of the referendum decision. Indeed, an effective and acceptable national regeneration within a mixed economy and pluralist society can and must be made to work. And it can begin now.

Peter J. Franklin.
City of London Polytechnic,
School of Business Studies,
84, Moorgate,
EC2

Basic chemicals investment

From Mr. J.-E. Modig.

Sir,—Mr. Ray Dafter (June 4) on the investment outlook for the U.K. basic chemical industry makes timely reading as the industry is hesitantly weighing the bleak present and near-term against the hopeful long-term. His comment on the (stated) efforts within the industry to "break the persistent trade cycle and invest during the depression" could have been more intelligible. The chemical industry's investments have almost always been, for profound reasons, counter-cyclical. Investment decisions, however, are usually made at the business peaks.

As chemical products are maturing, producers—as a group—will experience large profits only in periods of severe supply or capacity shortages. Such situations may occur due to generally unexpected (not necessarily unforeseeable) developments, like the sudden commodity inventory speculation in expectation of further price increases as in 1973-74. Producers can also themselves bring about higher prices and profits by withholding moves to increase capacity. Sooner or later general economic growth rate will push demand against capacity limits. Most producers and sometimes a few new entrants will then go ahead with plant expansion projects. These projects hold promises of increased economies to scale (lower investment cost per unit output) and better operating efficiency (lower operating cost per unit output). The most eager, major producer starts and the rest of industry quickly follows in fear of otherwise one day being squeezed by lower prices without ability to increase sales volume. It is therefore understandable, and even ideal for chemical producers as a group, that expansion decisions are made during boom years. New plant capacity will come into operation a few years later when the business cycle might be at a low. These capacity expansions in themselves will postpone the period during which the chemical industry earns the big profit.

It should be noted that economies of newer chemicals differ from the above scenario in that these products start from very high price levels and with sales growth patterns largely independent from the general business trend and cycle. Major U.K. producers intend to expand their ethylene capacity to meet the opportunities in newer chemicals

Very soon if not already, U.K. producers must face up to the certain and huge entry into basic chemicals by to-day's oil-rich countries. Will they not take the U.K. export markets and be formidable competitors in the domestic markets as well? The competitive strategy for the individual firm in this industry is exceedingly difficult to formulate. The annual report of the NEDO Process Plant Working Party, which usually appears in June or July, will hopefully help outsiders to better understand the industry's present thinking as to the most suitable long-term strategy.

Jan-Erik Modig.
Forecasting for Management,
66, Salisbury Road,
Watertown, Mass., U.S.

Expensive breeze

From Mr. G. Jennings.

Sir,—During the past few months, the general public, industry and commerce have been bombarded with exhortations to conserve energy. Nationwide publicity has rightly extolled the advantages of improved insulation, etc.

Yet on the industrial/commercial side of life, I cannot recall seeing any reference to that most obvious cause of wasted energy—the open door. I must confess a vested interest in that my company pioneered air curtains for open doorways some 20 years ago but my case is none the less valid for that. With an inside temperature of 65 degrees F an outside temperature of 30 degrees F and air entering at 500 ft./min., the total heat loss for a 10 feet x 10 feet doorway is a staggering 1,890,000 Btu/h., representing approximately 114 gallons of fuel oil or 1,718 feet of natural gas. Readers will know what this means in hard cash!

G. E. Jennings,
Minikay,
Mansted House,
1072, High Road,
Chadwell Heath, Romford, Essex.

To-day's Events

GENERAL

EEC Finance Ministers Council meeting takes place in Luxembourg and Ministers also attend annual meeting of Board of Governors of European Investment Bank.

National and Local Government Officers Association representatives meet employers for pay talks.

Amalgamated Union of Engineering Workers national conference begins, Hastings.

Union of Post Office Workers gives evidence to Select Committee on Nationalised Industries, House of Commons.

Mr. John Anstey, president and chairman of National Savings Committee, speaks at City of London Savings Committee reception, Mansion House, London.

Queen and Duke of Edinburgh attend service for Order of the Garter, St. George's Chapel, Windsor.

PARLIAMENTARY BUSINESS

House of Commons: Debate on housing; British Leyland Bill, remaining stages.

House of Lords: Policyholders Protection Bill, report.

OFFICIAL STATISTICS

Provisional retail trade figures (May).

Turnover of catering trades (April).

ARTS

Art exhibition, corresponding with 900th anniversary festivities of Chichester Cathedral, opens. Works will be exhibited in former Olympic Electric Theatre in Northgate.

Poetry Book Society's annual poetry festival begins, Institute of Contemporary Arts, Nash House, The Mall, and at Elizabeth Hall, London.

Members of London Philharmonic and London Symphony Orchestras give short late-night concert to inaugurate Henry Wood Hall, Southwark, London.

COMPANY RESULTS

Bulmer and Lumb (Holdings) (full year).

Comet Radiovision Services (half year).

COMPANY MEETINGS

See Week's Financial Diary on page 9.

COMPANY NEWS + COMMENT

Ever Ready looks overseas for growth

UNTIL Government policies change and Union attitudes alter, real growth in the U.K. operations of Ever Ready Company (Holdings) is likely to be limited, declares the chairman, Mr. L. W. Orchard.

But overseas the picture is better, and the company is currently extending and strengthening its overseas marketing and selling operations in carefully selected areas.

Capital commitments have been trimmed in line with current requirements and show a diminution from £6.6m. to £2.99m. at March 1, 1975. By the end of the current year they will show a further fall, says Mr. Orchard.

As reported on May 21 with details of an £8.7m. rights issue, group pre-tax profit for the past year decreased marginally from £12.95m. to £12.35m., the dividend is raised from 2.94p to 3.194p net, and maintenance of that rate on the capital as increased by the issue is forecast for the current year.

Although sales generated by the home companies increased from £51.4m. to £61m., profits from them decreased from £7.5m. to £5.6m.—a "totally inadequate" profit of 9.2 per cent, says Mr. Orchard.

Overseas operations helped to redress the balance with profits up from £5.35m. to £6.1m. on sales of £42.9m. (£37.8m.)—or 14.2 per cent.

The chairman emphasises that, with the current rate of inflation in the British economy, to maintain the future long-term viability of the business, a profit on sales of at least 20 per cent. is needed, and a return on capital employed of at least 27.5 per cent. At present the company is not permitted to achieve those targets in the U.K. due primarily to price control restrictions.

Exports from the U.K. increased from £16.3m. to £22.6m., but a cost level has now been reached where further expansion in export business generally is in jeopardy. "There are signs that we are beginning to price ourselves out of some of our traditional markets," the chairman adds.

An analysis of turnover (in percentages) and trading profit of £11.47m. shows battery and allied activities—U.K. 40 and £4.22m.; rest of Europe 27 and £3.28m.; Africa 14 and £2.83m. Other U.K. activities contributed 19 and £1.41m.

Two directors waived remuneration totalling £41,557 (£52,826).

Meeting, Whetstone, N., July 16, noon.

● comment

The tail of the Ever Ready statement is couched in relatively optimistic terms, but the overall mood is gloomy wherever the U.K. operations are mentioned. The position is summed up by the comparison made between the 9.2 per cent. pre-tax margin on sales achieved last year in the U.K. and the 14.2 per cent. made in the overseas operations. Taken in the context of U.K. exports being possibly priced out of traditional markets and the cutback in capital spending, the total scene does not look encouraging for the £8.7m. rights issue. But this is needed to reduce bank borrowings and the card up the group's sleeve is the strength of the current dividend cover which (barring accidents) should enable it to maintain the same rate on the increased share capital.

HIGHLIGHTS

Lex comments on the 16 months results from Norcros, contrasting the profits growth with the increase in gearing. Nurdin and Peacock has announced a 1-for-5 rights issue to raise £1.4m. and the Ever Ready report and accounts is hopeful that overseas business will continue to offset weakening profit margins in the U.K. This week should see the results of a number of major companies including Tate and Lyle and brewers Whitbread and Arthur Guinness.

B. S. & W. Whiteley cautious

IT IS not easy to make any meaningful forecast of trading results of B. S. and W. Whiteley in the current year due to many factors outside the directors' control, says the chairman, Mr. D. H. Whiteley.

Orders are not as plentiful as reported last year, but the opportunity is being taken to carry out further modernisation and improvement to plant in anticipation of being able to cater for an increased volume of production when present world conditions improve, he adds. The company manufactures electrical insulating pressboard, etc.

As reported on June 8, group profit expanded from £405,987 to a record £668,576 in the year to March 31, 1975, and the net dividend is 2.7375 (2.5p) per share. The value of goods exported from the U.K. was £2.7m. (£1.31m.).

All overseas interests continued to trade on an increasingly profitable basis with the exception of the Japanese associates, who were affected by the adverse conditions there. Recent reports however, suggest there should soon be an improvement.

Last January holders were informed the company had received notification that four Swiss companies claimed to hold in aggregate 33 per cent. of the capital and were proposing to bring their holdings together in a U.K. company. On February 18 it was announced this proposal had been referred to the Monopolies and Mergers Commission—the Secretary of State has required the Commission to make its report within five months of this date.

Meeting, Otley, July 9 at 11 a.m.

Long-term confidence at Weeks

ALTHOUGH the directors of Weeks Association feel it would be wise to be cautious as regards the company's immediate future, their confidence in the medium and long term "is still as high as ever," says the chairman, Mr. F. Weeks.

Benefits of the investment and effort which has been put in over the past two years have yet to be realised, he adds.

For the future the company must increasingly look overseas. It is well placed to realise the potential which exists and is committed to seek out opportunities worldwide. Exports last year expanded from £0.68m. to £1.52m.

Mr. Weeks points out, however, that the group is still substantially concerned with the U.K. agricultural industry. The general recession, he says, is affecting the demand for agricultural equipment and the position was aggravated by a late spring.

Demand which historically peaks in April-May had not occurred, and continuing lack of demand for commercial vehicles resulted in the current axle output falling below the planned level.

As reported on April 11, group pre-tax profit increased from £218,394 to £280,509 in the year to January 26, 1975, after a first-half downturn. The net dividend is 1.055p (1.0725p).

At May 12, Grovewood Securities held 822,176 shares in the company. Meeting, Hull, July 7, noon.

Feb 'in strong position'

The Board of Feb International believes that the group is in a strong position to take on the trading problems of 1975, chairman Mr. G. Fisher tells members in his annual statement.

He states that sales in the trading division continue to be depressed in the first quarter, but improvements are still being made by the chemical division.

"While the fortunes of our company are closely linked with the level of activity in the U.K. building and construction industries, our efforts in recent years to reduce this dependency continue," he says.

On the year under review Mr. Fisher explains that overall it was a period in which the group attempted to consolidate its operations, strengthen its controls and be in a position to take advantage of future improvements in the economic situation.

As reported on May 8 profit before tax fell from £307,000 to £293,000 in 1974. The dividend is raised from 1.236387p to a maximum permitted 1.23p net.

Accounts adjusted for inflation show profit before tax at £324,000 (£383,000) on a CPP basis, earnings per 10p share at 3.31p (3.92p) on a CPP basis compared with 2.9p (3.14p), historical and net tangible assets per share at 27.8p (25.6p) and 17.8p (15.7p).

The chairman points out that while 1974 profits on a CPP basis also show a reduction compared with 1973 they again show that profits adjusted for inflation are higher than profits computed on an historical basis. This demonstrates the success with which the group has protected itself against inflation.

Meeting, Manchester, on July 3 at 10.30 a.m.

John Foster is 'well equipped'

IN HIS ANNUAL statement, the chairman of textile manufacturers, John Foster and Son, Mr. G. F. B. Grant, tells members he is satisfied the company is well-equipped to take advantage of the upturn in trade whenever it comes, and sales staff are keeping in very close touch with existing markets and seeking to develop new ones. "I have no doubt therefore that we shall get our full share of the available business," he says.

He adds it seems inevitable that group profit for 1975-76 will be lower than for 1974-75 but "there is a reasonable expectation" that conditions in the latter part of 1975-76 will improve, leading to more normal profitability in 1976-77.

As reported on May 14, taxable profits fell from £1.2m. for the 14 months to March 1, 1974 to £0.49m. in the year to February 28, 1975. The dividend is 2.8687p (3.4575p) net.

The sharp downturn in the results of John Foster Valley—an Australian subsidiary, is attributable to a rapid escalation in costs and a sharp decline in the amount of business available. There are now some signs of improvement, but complete recovery will not be rapid, says Mr. Grant.

Group turnover was £11.91m. (£11.9m. for previous 14 months). The value of direct exports of cloth and yarn was £3,402,786, accounting for 37.3 per cent. of turnover, compared with £3,132,682 in 1973-74. It is estimated that in all nearly 70 per cent. of U.K. turnover goes to overseas markets.

Production in the new spinning factory and warehouse block began in September. The project was built and equipped at a total of £900,000, of which the company expects to receive £136,000 in grants. Investment of this sort is vital for the future prosperity of the company, and the industry, states the chairman.

Meeting, Great Eastern Hotel, E.C., on July 9 at 12.30 p.m.

DIVIDENDS ANNOUNCED

	Current payment	Date of payment	Corre-sponding div.	Total for year	Total last year
Norcros	2	July 22	1.33	3.73(a)	2.31

Dividends shown pence per share net except where otherwise stated.
* Equivalent after allowing for scrip issue. † On capital increased by rights and/or acquisition issues. (a) For 16 months—includes 0.73p special to cover extra 18 weeks.

Securities Trust of Scotland

AN ACCURATE forecast of the current year's earnings of Securities Trust of Scotland is "unusually difficult," but the directors hope to maintain the dividend.

With over one-third of investments abroad, and a large proportion of U.K. investments having substantial overseas interests, future revenue should not be unduly depressed, they say. But they point out that the company will not, this year, enjoy the high short-term interest rates on large cash deposits.

In the year to March 31, 1975, the Sw.Fr.15m. loan was repaid from proceeds of the sale of securities in Europe.

As reported on April 17 with net asset details, gross investment income was £2.54m. (£2.52m.) and the dividend is 4.7p (4.6p) net per share. Franked income was £1.18m. (£1.38m.) and unfranked £1.36m. (£1.13m.).

Meeting, Edinburgh, June 18 at 12.30 p.m.

BOARD MEETINGS

The following companies have notified dates of Board meetings to The Stock Exchange. Such meetings are usually held for the purpose of considering dividends. Official indications are not available whether dividends concerned are interims or finals and the sub-division shown below is based mainly on last year's timetable.

TO-DAY

Interims:—Anglo American Gold Investments, Comet Radiovision Services, Lonsdale Universal.

Finals:—Atkins Bros. (Hosiery), Bulmer and Lumb, Caffyns, Clover Dairies, Country and New Town Properties, Electric and General Investment, Great Portland Estates, R. Paterson, Property Holding and Investment Trust, W.G.I., Warren Tea, West Cumberland Silk Mills, Wolverhampton Steam Laundry.

FUTURE DATES

Interims:—	
Castlefield (Klang) Rubber Ests.	Jun. 23
Dobson Park Industries	Jun. 19
Killinghall (Rubber) Devlpmt.	Jun. 23
Leyland Paint and Wallpaper	Jun. 20
Lookers	Jun. 27
Raeburn Investment Trust	Jun. 20
Finals:—	
British Cotton and Wool Dyers	Jun. 24
Brown Boveri Kent	July 1
Invergordon Distillers	Jun. 18
Kent (George)	July 1
Northern Securities Trust	Jun. 19
Racal Electronics	*Jun. 26
Somic	Jun. 24
Stead and Simpson	Jun. 26
Weston Pharmaceuticals	Jun. 19
Whitbread	Jun. 18

*Amended

Lafarge expansion policy

MR. J. G. BEEVOR, chairman of The Lafarge Organisation states that while the Lagarge Fondu International is the biggest and most profitable asset with "excellent" long-term prospects, the organisation's own operational activities, concentrated in four U.K. subsidiaries, are being developed and strengthened.

The policy is to expand present activities in the building materials industry and to add to them whenever opportunity offers and financial conditions permit.

As reported on April 24 group pre-tax profit for the year to December 29, 1974 decreased from £799,416 to £663,562, and the dividend is cut from 2.05p to 1.5p net. The four operating U.K. subsidiaries suffered a loss.

LFI's sales were approximately £16m. and pre-tax rofits about £2.2m., of which the amount attributable to the organisation's holding is £976,108. LFI's results in 1975 will be affected by full interest charges and depreciation on new factories and will be somewhat below the high profit level of 1974, but current sales and orders indicate that results should continue to be good, says Mr. Beevor.

The events of 1974, including a loss at True Flue, the loss and development expenditure of GRC and the investment in the Durasteel relocation, have used up the organisation's cash surplus and resulted in some borrowing requirement. The need now is to conserve financial resources and to use the investments to generate cash—the added problem of inflation makes this more important still. It is for these reasons that the dividend is reduced.

The ultimate holding company is Lafarge SA incorporated in France.

Meeting, Windsor, July 7, noon.

Knott Mill loss £0.34m.

Carpet retailers, Knott Mill Holdings, incurred a loss of £346,000 in the year to February 26, 1975, compared with a profit of £186,000 previously, and there is no dividend. Last year's total payment was 1.315p net.

For the first 24 weeks, the deficit was £145,296 against profits of £126,286.

The year's loss is struck after interest charges of £231,000 (£99,000). There is a tax credit of £132,000 (charge £123,000), but extraordinary debits take £93,000 (credit £6,000). Turnover increased from £3.19m. to £3.53m.

Brandts opens in Greece

Brandts Shipping Finance has opened a branch in Piraeus, managed by Mr. Michael Souter, a director of the company.

Mr. Elias Alexandrakis, who has been Brandt's representative in Greece for the past eight years and is also now a member of Grindlays' Advisory Board in Greece, will continue to represent Brandts in Greece and work closely with Mr. Souter.

The opening emphasises the bank's continuing and expansionist policy of shipping finance to Greek shipowners.

Profit upsurge for Norcros

INCLUDING A full 12 months' trading of Crittall Hope Engineering, acquired at end-March 1974, pre-tax profits of the industrial group Norcros amounted to £11.64m. for the 16 months to March 31, 1975. The figure for the previous 12 months was £6.45m.

To show results of the enlarged group for a normal year, unaudited figures for the 12 months to March 31, 1975, are compared with those for the same period of 1973-74, prepared on a pro-forma basis as if the Crittall Hope acquisition had taken place on the same terms one year earlier. This reveals a growth in taxable profits from £8.79m. to £9.89m.

The comparison of the same activities over the two years shows the following pattern:—Earnings per 25p share 10.6p, an increase of 47 per cent., net assets per share 50.2p, up 15 per cent., cash flow per share 16.4p, up 38 per cent., and net current assets of £18.8m. representing an unchanged ratio of 1.5 to 1.

The final dividend is the forecast 2p per 25p share making a net total of 3.73p, which includes the special 0.73p paid to cover the extra 18 weeks—total for the previous year was 2.31p.

	1974-75 16 mnths. £000	1973 12 mnths £000
Group sales	142,434	56,427
U.K.	121,387	47,237
Exports from U.K.	10,005	3,292
Overseas	11,047	5,898
Trading profit	13,727	6,843
Investment income	330	235
Int. payable	3,616	632
Share associates	1,202	—
Profit before tax	11,643	6,446
Taxation	5,880	2,853
Pre acquisition loss	—	1
Minority	317	10
Attributable	5,446	3,584
Pref. dividends	153	122
Extraordinary credits	317	289
Profit balance	5,610	3,751
Ord. dividends	1,590	751
Retained	4,020	3,000

For 12 months:

	(Unaudited) 1975 £000	Pro forma 1974 £000
Group sales*	123,347	103,920
Trading profit	11,731	7,962
Investment income	271	464
Interest payable	3,318	2,532
Share associates	1,202	898
Profit before tax	9,886	6,737
Taxation	4,968	3,481
Pre acquisition loss	—	1
Minority	315	152
Attributable	4,605	3,153
Pref. dividends	103	100
Extraordinary credits	317	†57
Profit of year	4,819	2,998

* Including exports £8.39m. (£6.5m.).
† Debits.

The group balance-sheet at March 31, 1975 shows net current assets of £18.8m. (£4.7m. at December 2, 1973), investments £4.5m. (£3.2m.) and fixed assets £27.8m. (£15.3m.). Share capital, reserves and retained profits stood at £22.9m. (£15.2m.), minority interests £0.7m. (£0.1m.), tax equalisation and deferred credits £8.1m. (£1.9m.) and loan capital £19.3m. (£5.9m.).

See Lex

Moray Firth Maltings record

Profit of Moray Firth Maltings increased from £326,000 to a record £495,000 in 1974, subject to tax of £306,520, against £159,600. Turnover jumped from £2.58m. to £5.1m.

A dividend of £36,000 has been paid with the remainder going to build up reserves which, with grants, now stand at £2.22m. With secured loans and deferred tax, year end resources totalled £3.92m.

The chairman, Mr. P. Dolan reports that the order book is good and profits for the first four months are £298,000.

The third plant at Inverness is now on stream. It doubles the malt production of the company to 75,000 tons this year.

He says the directors are concerned about EEC cereal prices—barley prices may be lower next harvest.

Another trouble is the acute problems of Scotch distiller customers who are suffering from cash liquidity induced by the artificial low home market prices and the tax collection system which is forcing distillers to cut back production and thus jeopardise future sales in vital export markets.

"We hope that the lower barley price and consequent lower malt price will enable distillers to buy more malt and produce more whisky to rebuild future stocks," he declares.

Melias turns in £0.5m.

ON SALES up from £8.94m. to £12.97m., pre-tax profit of Melias, part of the Fine Fare supermarket chain subsidiary of Associated British Foods, improved from £416,000 to £500,000 in the 52 weeks to March 29, 1975.

A final dividend of 0.9632p lifts the net total from 1.4322p to 1.5532p.

	1974-75 £000	[illegible]
External sales	12,969	[illegible]
Profits before taxation	500	[illegible]
Tax	282	[illegible]
Profit after tax	218	[illegible]
Extraordinary credits	46	[illegible]
Available	264	[illegible]
Dividends	48	[illegible]
Retained	216	[illegible]

ISSUE NEWS

Nurdin & Peacock £1.4m. rights

Nurdin and Peacock, cash and carry wholesalers, is to raise £1.4m. by the issue of 2.4m. Ordinary shares of 10p at 60p on the basis of one for five.

The funds raised will be used in the first instance to reduce indebtedness, but will also allow the company to take immediate advantage of opportunities for expansion as they present themselves.

The directors and certain members of their families and trustees of their family trusts who own 5,702,656 Ordinary shares have undertaken to subscribe for 322,362 of the 1,140,531 shares provisionally allotted to them.

Arrangements have been made to place their remaining 817,[illegible] into firm hands at 73p per share fully paid and such persons are applying the premium of 13p per share entirely in or towards payment for the new shares being subscribed by them.

The directors envisage the rate of dividend for the year ending January 3, 1976, will be at least 3p net per share on the increased capital. Total in respect of the previous year was 1.771p.

The circular to shareholders is being posted to-day, together with renounceable provisional allotment letters. Last date for acceptance and payment in full is July 9.

Brokers to the issue are Kemp-Gee and Co. and the issue has been underwritten by County Bank.

SUN ALLIANCE —91.44%

Sun Alliance and London Insurance announces that acceptances have been received for 11,262,145 (91.44 per cent.) of the shares offered by way of rights on the basis of one for three at 31[illegible]. The balance of 33,334 shares has been sold in the market.

FAIRCLOUGH—90.3%

Of the recent rights issue by Leonard Fairclough of 1,983,7[illegible] Ordinary 25p shares, 1,791,[illegible] (90.3 per cent.) provisionally allotted were accepted. The balance has been sold and the excess over the subscription price (after expenses) will be distributed pro rata among those entitled, except no payment of an amount less than 50p will be made.

FT Share Information Service

The following securities have been added to the Share Information Services appearing in the Financial Times:—

GLC 12½pc 1982 (section: Corporation Loans).

Procur U.K. 11¼pc 1993-98 (section: Engineering, Machine Tools).

Tax reform moves in New Caledonia

A restricted French cabinet session will review on July 10 the continuing problems facing the development of the New Caledonian nickel industry, according to the French Overseas Territories and Departments Minister, M. Olivier Stirn.

A major topic will be to finalise the proposed fiscal reform for the island to lessen the substantial tax burden on mining companies operating there and to replace this by a modern system, more in line with international practice, industry sources said.

During a transitional period, the French Government intends to provide a subsidy for the Island's budget due to an expected shortfall in tax from the introduction of the reformed fiscal system.

Meanwhile, the chairman of Amax, Mr. Ian MacGregor, met M. Stirn and Industry Minister M. Michel d'Ornano to review plans for Amax's nickel project in the north of New Caledonia. Industry Ministry sources said the meeting was a routine session and they did not expect any decisions to emerge from the discussions.

Standard & Chartered

Standard and Chartered Banking Group has opened a branch of the Chartered Bank in Chicago marking a further development in the group's North American expansion programme.

Through its wholly owned subsidiary, the Chartered Bank of London, the group also has 18 branches in California as well as offices in New York, San Francisco and Seattle.

HEENAN SPARK REPAYMENT

Heenan Spark intends to submit proposals, as soon as possible, to holders of the outstanding £627,730 nominal of 6½ per cent. First Mortgage Debenture Stock 1984/89 for repayment of the stock at £85 per £100 nominal, plus accrued interest.

Pending Dividends

For the convenience of readers, the dates when some of the more important company dividend statements may be expected in the next few weeks are given in the following table. The dates *shown are those of last year's* announcements, except where the forthcoming Board meetings (indicated thus*) have been officially published. It should be emphasised that the dividends to be declared will not *necessarily* be at the *amounts* or rates per cent. shown in the column headed "Announcement last year." Preliminary profit figures usually accompany final dividend announcements.

	Date	Announcement last year
*AD Intntl.	July 2	Final 8.6%
*AVP Industs.	Aug. 5	Final 5%
Airfix	July 11	Final 12.4%
*Allen (Edgar)	June 24	Final 9.9%
*Allied Breweries	June 24	Int. 3.5%
Assoc. Newspapers	June 13	Final 13.95%
*Assoc. Television	June 26	Final 18.1%
*Avon Rubber	June 18	Int. 4.2%
Barclays Bank	July 26	Int. 6%
Bassett (G.)	June 16	Final 18.1%
Bath and Portland	July 8	Int. 6%
*BPB Industs.	June 25	Final 7.4%
*Berisford (S. and W.)	June 19	Int. 13.4%
Brit.-American Tobacco	July 26	Sec. int. 20.9%
*Brown Boveri Kent	July 1	Final due
Brown (John)	June 29	Final 10.8%
Cable Trust	July 25	Int. 8.3%
Capital and Counties	July 26	Final 9%
*Chubb	July 2	Final 15.6%
Comben	June 21	Final 35.1%
*Compair	June 18	Int. 8%
Concrete	July 18	Final 18%
[illegible]	[illegible]	[illegible]
Davis (G.)	June 18	[illegible]
Dawson Intnl.	July 24	[illegible]
Distillers	July 18	[illegible]
Dobson Park	July 18	[illegible]
*Doncaster (Daniel)	June 17	[illegible]
Dowty	[illegible]	[illegible]
Eastern Produce	May 22	[illegible]
*Elliott (B.)	June 26	[illegible]
*English China Clays	June 18	[illegible]
*Fodens	July 18	[illegible]
General Electric	July 9	[illegible]
Gestetner	July 25	[illegible]
*GRA Property Trust	July 24	[illegible]
Granada	July 2	[illegible]
Gt. Universal Stores	July 18	Final 18.9%
*Guinness (A.)	June 18	Int. 10.8%
Hall-Thermotank	July 22	Int. 5.5%
*Hargreaves	June 17	Final 8.5%
[illegible]	June 26	Int. 13%
Howden Group	July 10	Final 16.6%
*IC Gas	June 24	Final 12.2% §
*Imperial Gp.	July 10	Int. 10.4%
Inchcape	July 25	Final 5.5%
Initial Services	June 21	Final 13.7%
International Timber	July 10	Final 16.5%

	Date	Announcement last year
Inveresk	July 23	Int. 3.7%
Keyser Ullmann	July 10	Final 22.5%
*Land Securities	June 17	Final 6.5%
*Lindustries	June 18	Int. 6.6%
*Lloyd (F. H.)	June 18	Final 16%
Lloyds Bank	July 19	Int. 4.4%
*"LOFS"	June 25	Final 19.2%
*Lyons (J.)	June 19	Final 8.5%
Macpherson (D.)	July 10	Int. 4.8%
Maple Macowards	May 1	Final 13%
Mercury Securities	July 3	Final 15.4%
Meyer (M. L.)	July 17	Final 6.5%
Midland Bank	July 19	Int. 6.3%
Natl. Wstmnstr. Bank	July 23	Int. 6%
News Intnl.	June 28	Int. 20.5%
*Racal Electronics	June 26	Final 11.1%
Rank Organisation	July 23	Int. 13%
Rediffusion	June 29	Final 14.4%
Renold	June 27	Final 6.5%
*Rexmore	June 18	Final 14.8%
Richardsons Westgarth	July 16	Final 6.9%
Robinson Rentals	July 2	[illegible]
Ropner Hldgs.	[illegible]	[illegible]
Rothmans Intnl.	July 24	[illegible]
Rothschild Inv. Trust	[illegible]	[illegible]
SGB	July 10	[illegible]
Scot. & Newcastle Breweries	July 11	[illegible]
Scapa	[illegible]	[illegible]
Selection Trust	[illegible]	[illegible]
Standard and Chartered	June 17	[illegible]
Steetley	July 19	[illegible]
Taylor Woodrow	[illegible]	[illegible]
*Tesco	June 18	[illegible]
Thorn Elect.	July 17	[illegible]
Trust Houses Forte	July 17	[illegible]
Unigate	July 24	Final 8.4%
Union Discount	July 17	Int. 7.5%
Vaux Brews.	June 27	Final 13.6%
Ward and Goldstone	July 8	Final 16.7%
*Warren Tea	June 18	Final 5.1%
*Whitbread	June 18	Final 11.3%
Wilkinson Match	July 25	Final 8.2%

* Board meetings intimated. † Rights issue since made. ‡ Tax free. § Scrip issue since made from reserves.

Local Authority Investments

LOCAL AUTHORITY loan rates showed mixed movements, on a modest scale last week, as did interest rates in the money market at large.

Deposits with authorities at seven-days' notice strengthened a little on balance, to 9¼-9½ per cent., from 9⅛-9⅜ per cent., and one-month deposits hardened to 9⅝-9⅞ per cent., from 9⅜-9½ per cent., *but three-month ended at* 9¾-9⅞ per cent., against the previous 9⅞-10 per cent., and the one-year mortgage rate eased to 11⅞ per cent., from 11⅞-12 per cent.

The Financial Times Government Securities Index fell 0.50 point on balance, to 58.22, but ended appreciably above the *lowest of the week, 57.60 on Wednesday*, with the release on Friday of the U.K. overseas trade figures *for May* among factors helping the gilt-edged market to close on a firm note, after having been unsettled by the weakness of sterling.

One-year local authority bonds were placed during the week with a coupon of 11¾ per cent., against the previous week's 11½ per cent.

Rate (%) June 13, 1975

2 days' notice (deposit receipt)	9 — 9¼
7 days' notice (deposit receipt)	9¼ — 9½
7 days' notice after one month (deposit receipt)	9⅝ — 9⅞
7 days' notice after three months (deposit receipt)	9¾ — 9⅞
7 days' notice after six months (deposit receipt)	10⅛ — 10⅜
Mortgage at one month's mutual notice after 11 months	11⅞ — 12
Mortgage at one month's lender notice after 11 months nominal term 2-5 years	n.a.
2 years' mortgage	13 — 13¼†
3 years' mortgage	13¾†
4 years' mortgage	14¼†
5 years' mortgage	14½ — 14¾†
6-10 years' mortgage	n.a.
11-30 years' mortgage	n.a.

* Rates are for sums not less than £20,000 and are subject to local variations and fluctuations. † Nominal. ‡ Shorter periods may attract higher rates than longer. n.a. Not available.

Public Works Loan Board rates

(Effective from June 7, 1975)

Years	Quota loans Repaid By instalments	Quota loans Repaid At maturity	Non-quota loans Repaid By instalments	Non-quota loans Repaid At maturity
Up to 5	11	11	12⅞	12⅞
Over 5, up to 10	11	13	12⅞	13½
Over 10, up to 15	12	14¼	13⅜	14⅝
Over 15, up to 25	13½	14⅝	13⅞	14⅞
Over 25	14¼	14⅞	14⅜	15

RECENT ISSUES

EQUITIES

Issue Price	Amount Paid up	Latest Renunc. Date	1975 High	1975 Low	Stock	Closing Price	+ or −	Div.	Times Covered	Gross Yield	P/E Ratio
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Bell Canada ($25)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Clive Discount (20p)	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Doelkraal Gold Mining	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Swan New Northern	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	F.P.	[illegible]	[illegible]	[illegible]	Bank 'A'	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FIXED INTEREST STOCKS

Issue Price	Amount Paid up	Latest Renunc. Date	1975 High	1975 Low	Stock	Closing Price	+ or −
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

"RIGHTS" OFFERS

Issue Price	Amount Paid up	Latest Renunc. Date	1975 High	1975 Low	Stock	Closing Price	+ or −
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Renunciation date usually last day for dealing free of stamp duty. [illegible]

INTERNATIONAL COMPANY NEWS

Frs. 500m. loan for Rhone-Poulenc

BY RUPERT CORNWELL

PARIS, June 15.

A CUT of one-fifth in investment and poor operating results for 1975 is the depressing prospect facing shareholders in France's largest chemicals group, Rhone-Poulenc, as outlined this *week-end by its President, M.* Renaud Gillet.

Addressing a meeting of *financial analysts, M. Gillet* warned that Group resources were considerably under-employed, thanks to the low level of the French, and the world economy. At present, turnover is running at only around Frs.1.5bn. a month—no more than 75 per cent. of last year's figure.

Cash flow in 1975 is all but certain to be below the mark required to cover depreciation costs. Frs.1.3bn. In the first quarter, the President reported, it was barely one-third of the admittedly exceptional Frs. 900m. recorded for the same period in 1974.

The group's investment programme has already been slashed to Frs.1.9bn. (of which 29 per cent. will be spent *abroad) from the* previously scheduled Frs.2.4bn. The largest tranche, Frs.360m., will be used *to bolster the group's petro*-chemical division.

In the meantime, as the cash *flow shortfall indicates*, Rhone-Poulenc will require external finance. This summer, it is planning to float a Frs.500m. loan on the domestic capital market, as well as borrowing more from its commercial bankers.

Earlier this week, Rhone-Poulenc announced a provisional group net profit of Frs.1.04bn., compared with Frs.585m. in 1974. Gross cash flow reached Frs.2.6bn.

'French solution' at Lu-Brun

By Rupert Cornwell

PARIS, June 15.

AFTER MORE than two and a half years of uncertainty, the fate of the leading French biscuit company, Lu-Brun, has been settled at last, with the "French solution" which the Government here has always advocated.

Under a deal finalised late last week, 50.5 per cent. of the capital of Lu-Brun et Associes, which had been in the hands of the merchant bank, Banque Worms, will be made over to a consortium called Ceraliment, in which the holding group, Aliment Essentiel, holds 67 per cent. and the state-controlled farmers bank, Credit Agricole, a further 17 per cent.

The remainder of Lu-Brun's equity will, for the most part, be in the hands of M. Forgeot, the former President of the biscuit group.

These arrangements, which have been promptly approved by the Finance Ministry, thus finally banish the spectre of a foreign take-over in an industry which has already suffered heavy inroads from abroad. Even when the long-standing British suitor United Biscuits dropped its option for a majority stake, the Belgian company, General Biscuit, made a brief bid to secure Lu-Brun.

***Ceraliment, with sales of* Frs.340m. (£36m. annually) is making no bones of its ambi*tion to use Lu-Brun as a spring*board for further acquisitions in the sector, especially if its American rivals lose heart at the modest results that they have so far achieved in France, and decide to pull out.**

Good start for KHD

COLOGNE, June 15.

KLOECKNER - Humboldt - Deutz raised its turnover by 18 per cent. in the first five months of this year to DM912m.; it also has orders in hand of DM2.6bn. —75 per cent. more than at the same time last year, according to chairman Karl-Heinz Sonne.

Turnover for the whole year should reach around DM2.5bn., 25 per cent. more than in 1974, *after excluding Magirus-Deutz*. (now part of a joint heavy vehicle venture with Fiat).

The new order inflow in the first five months went up 57 per cent. to DM1.5bn., with foreign orders rising 67 per cent. to DM0.9bn.

Herr Sonne said that KHD, which last year made a net profit of DM10.9m. (nil), will invest DM625m. up to 1979. This year, *it plans to spend over DM100m.*, he hoped the full results for this year would mark a return to the *levels KHD used to earn before* its recent crisis.

More heavy vehicle orders, *especially from the Middle East* and Eastern Europe were hoped for and big orders, one for 2,000 *and one for 3,000 units*, were currently being discussed. No further details were revealed.
Reuter

Company Results

Deutsche Babcock orders rise

● **Deutsche Babcock und Wilcox** parent company incoming orders in the first five months of the year rose by 120 per cent. over the same 1974 period to DM792m.

Group orders increased by 23.6 per cent. to DM2.48bn., taking orders in hand at end-May to DM5.14bn. (up 27 per cent.).

Babcock received its biggest domestic order, worth DM300m., *from Kraftwerke Voerde Steag*-RWE OHG, to help build a coal-fired power station at Voerde. *The total value of the station* will be DM1.2bn.

● **Schering's** earnings in the first 1975 quarter were slightly higher than in the same period last year. This trend will not continue, as turnover will be less favourable during the rest of the year. Group first quarter sales rose 0.4 per cent. to DM458m. (DM456m.). Parent company sales were 5 per cent. higher at DM336m. (DM320m.), including *an 8.1 per cent. exports increase*. Domestic sales were unchanged. The lower sales growth trend *which started in the second 1974* half has continued. Fixed asset investments were carried out in line with the 1975 planned total of DM200m. (DM194m.).

● **Seagram** has reported net income of $15.4m. for the third quarter ended April 30, 1975. This compares with $16.6m. for a similar period last year. Earnings per share were 44 cents compared with 47 cents in the third quarter of 1974. Consolidated net sales were $463m against $438m. for the 1974 quarter.

Net profits for the quarter reflected higher interest charges, the effect of inflation on costs, and the impact of adverse world-wide economic conditions on consumer purchasing patterns.

In North America, results were about equal to third quarter 1974 figures. Overseas results in the *distilled spirits and wine operations* of the company reflected higher rates of inflation and the general slowdown in the international business conditions. This was particularly visible in the U.K., Brazil, France and Italy.

● **James Hardie Asbestos** has made a consolidated net profit of $A10m. ($A7.9m.) for the year to March 31. A final dividend of 6.25 per cent. making 12.5 per cent. (same) is payable on July 31. Depreciation was $A4.8m. ($A4.5m.), tax $A8.2m. ($A8.0m.).

● **Fibre Containers** consolidated after tax net profits are up 6.15 per cent. for the half year to April 30. The interim dividend is unchanged at 8 per cent. (4 cents per share) payable on July 22. Sales are up 21.8 per cent. Current trading conditions are difficult. Demand is slackening because of the unsettled economic situation.

● **Ducellier-Bendix-Air Equipment** makers of electrical components for auto and aerospace industries, has revealed net earnings for the first half of fiscal year ending August 31 of Frs.3.38m. versus a loss of Frs.1.2m.

WORLD ECONOMIC INDICATORS

RETAIL PRICE INDICES

	May '75	Apr. '75	Mar. '75	May '74	Change over year
U.K.	134.5	129.1	124.3	106.6	+25%
Holland	155.5	154.6	152.7	140.8	+10.5%
Belgium	141.77	140.59	139.04	124.69	+12.5%
	Apr. '75	Mar. '75	Feb. '75	Apr. '74	
France	149.5	148.2	147.0	132.7	+12.7%
Japan	171.3	167.6	166.0	150.8	+12%
Italy	168.0	165.7	165.5	138.6	+17.5%
U.S.A.	158.6	157.9	157.2	143.9	+10.2%
W. Germany	149.7	148.9	148.4	139.9	+7%

Money & Exchanges

Short-term interest rates showed modest net adjustments in the London money market last week, gaining slight amounts in some cases, and losing ground in others. The one-month sterling certificate yield, for instance, hardened a shade, to 9¾-9⅞ per cent., from the previous 9½-9⅝ per cent., but the *three-month* was unchanged on balance, at 9 13/16-9 15/16 per cent., and the one-year eased to 10 7/16-10⅝ per cent., from 11-10⅞ per cent. Day-to-day credit was in uneven supply over the week-with gilt-edged settlements on Monday playing a major part in a substantial shortage that day, when the authorities gave "exceptionally large" help, through purchases of a very large amount of bills and the *making of moderate loans* to the Discount market for one day at the Bank of England Minimum Lending Rate. Tuesday brought no official intervention, and the authorities sold large sums of Treasury bills on Wednesday and Thursday, in order to absorb surplus funds, but on Friday provided moderate help through bill purchases. At the Treasury bill tender, the average rate of discount was raised to 9.4148 per cent., from the previous Friday's 9.3986 per cent. The minimum-accepted bid was cut ¼p to £97.65, and bids at this level were met *as to about 97 per cent.*

Bank of England Minimum Lending Rate 10%
(Since May 2, 1975)

Sterling touched record low levels against major currencies in general last week, though closing above its worst, helped by the publication of the U.K. May overseas trade figures, showing a cut in the deficit on visible account to £16m. The trade-weighted average depreciation in sterling against ten units since the Washington Currency Agreement of December, 1971 (as calculated by the Bank of England) widened on balance to 25.9 *per cent., from 24.6 per cent. at* the end of the previous week, touching 26.5 per cent. early on *Thursday. In terms of the U.S.* dollar, the pound lost 375 points on balance, at $2.2830-2.2840. The dollar's weighted fall against 14 currencies since the Washington Agreement (as measured by Morgan Guaranty) narrowed to 6.95 per cent., from 7.05 per cent., while sterling's loss on a similar basis widened to 31.84 per cent., *from 29.85 per cent.*

Gold fell $1 an ounce on balance in London to $163¾-164¼. The Krugerrand ended in places at $184-186 (£80¼-81¼) in domestic business, against $194-196 (£83¾-£84¾), and at $168¼-170¼ (£73¾-£74¾) in international, against $169-171½ (£73-74).

EXCHANGE CROSS-RATES

June 13	Frankfurt	New York	Paris	Brussels	London	A'sterdam	Zurich
Frankf't	—	2.331-333	68.25-45	6.41-43	5.303-323	97.40-80	85.60-80
N. York	42.50-85	—	26.02-06	2.8720-60	2.281-2835	41.64-66	40.19-22
Paris	171.220-670	3.9857-003	—	11.454-5085	9.101-1256	166.24-2?	160.325-425
Brussels	14.29-95	34.78-85	8.82-71	—	79.20-.40	14.50-57	15.86-01
London	5.323-333	2.2830-2840	9.124-142	79.50-20	—	5.47½-48½	5.68½-69½
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

U.S. $ in Montreal, U.S. $=[illegible] Canadian cents
Canadian $ in New York, [illegible]. U.S. $ in Milan [illegible]
Sterling in Milan [illegible]

EURO-CURRENCY INTEREST RATES*

June 13 1975	Sterling	U.S. Dollar	Canadian Dollar	Dutch guilder	W. German mark	Swiss franc	[illegible]
Short term	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7 days notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Three months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Six months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One Year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Euro-French deposit rate: [illegible]
* Rates are nominal closing rates.
† Short-term rates are call for sterling, U.S. dollars and Canadian dollars and two-days' notice for guilders and Swiss francs.

June 13 1975	Sterling Certificate of deposit	Inter-bank	Local Authority deposits	Local Auth. negotiable bonds	Finance House deposits	Company deposits	Discount market deposits	Treasury Bills	Eligible Bank Bills	Fine trade Bills
Overnight	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2 days notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
7 days or 7 days notice	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One month	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Two months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Three months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Six months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Nine months	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
One year	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Two years	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Local Authority and finance houses seven days' notice, others seven days' fixed. [illegible]

MINING NOTEBOOK

Mr. MacGregor looks at the coal scene

BY LODESTAR

ONE TON of the right kind of coal can produce as much energy as four barrels of oil.

This simple equation is the *key* to the wide investment interest in world coal-mining and is very much in the minds of the oil and mining industries. Oil, of course, is much more expensive than coal, and the life of the known deposits of oil is far from limitless.

The U.S. oil companies, which now have fewer areas in the world available to them for exploration, are being deterred at home by the loss of their depletion allowances. This has boosted the already high cost of exploration. *Standard Oil of* California has said that because of recent tax legislation it is *reviewing its U.S. investment pro*grammes and will not undertake marginal oil and gas projects.

Electricity

At present about 25 per cent. of U.S. energy needs is in electricity, produced from coal, uranium and hydro-power. But most of the energy produced by oil is non-electric and, with the high price of oil coupled to an expected dwindling in its long-term supply, its energy contribution will have to be helped out *by electricity. It* has been estimated that U.S. use of electricity will double in due course.

Getting a greatly increased flow of electricity to the consumer is going to require, among other things, "scads of copper," said the Amax chairman, Mr. Ian MacGregor, when I met him in London last week. And who has got a major copper potential together with a big and growing coal production? Amax.

So it is not difficult to see why Standard Oil of California is paying $333m. (£144m.) for a stake of 19.8 per cent. in Amax. The deal which will provide funds for the latter's big natural resource expansion programme, is a heady blend of money and opportunity. But will it go further than this now that three Socal representatives have joined the Amax board?

MacGregor sees limited areas *of technical co-operation* but he regards the link with Socal as essentially financial. This is not to *say that the oil major regards its* Amax holding as only an investment. There might well be some following-up if, *for example*, Amax needs a rich partner for any new ventures which may come along. And Amax, which firmly believes in the coming explosion *in demand for* all minerals, is not short of ideas as anyone who has talked to its *chairman will well know*.

So far as 1975 is concerned, improved profit margins on *molybdenum coupled* with the growing coal revenue—the latter should provide between 25 and *30 per cent. of profitability* this year—will help offset the effects of lower revenue from copper, *lead and zinc*. But the group is not going to match last year's record earnings of $148.4m., *which compared* with $105.1m. in 1973.

MacGregor said: "We are still shooting for a second best-ever year." He also maintains his view that the U.S. will be pulling out of recession by the end of 1975. On this basis, Amax will be adjusting its sights on a new record profit target for 1976.

Incidentally, after allowing for the Socal deal and the proposed acquisition by Amax of Copper *Range and Central Oil, the hold*ing in Amax of London's Selection Trust will amount to only 8.6 per cent. But if all goes well, as seems likely, this reduced overall stake should produce at least as much revenue for the U.K. concern.

Ever hopeful

One of the more colourful and engaging characters in the rip-roaring Australian nickel exploration boom of the late 1960s was "Cam" Cooper. I met him again last week and he hasn't changed.

A tough and successful prospector: a crack shot; the owner of a vehicle which, in the outback, was regarded as the next best thing to a tank; a man of wit during the great battle to obtain *claim licences attempted to spike* the wardens guns by pegging the ground on which the Leonora court house stood and yet a non-drinker with the delicate appreciation of the gourmet.

His company, Western Compass Minerals, is still prospecting while while other survivors of the boom are quietly sitting back and waiting for the inevitable end. But unless Compass makes a find pretty soon, and Cooper knows *the heavy odds against this*, his company also has only a short while to run.

A change in Australia's hostile attitude to overseas investment would breathe new life into the *exploration scene down-under* but the chances of this are still reckoned to be remote even given the change of Government in Canberra. Meanwhile, Copper and *the other "real" prospectors still* have the itch—perhaps his "tank" will turn up in Rhodesia when or *if the political climate improves*.

Goldrim

I am always being challenged about my Australian "Whatever happened to?" series. Some of the queries defeat me. After all if the companies themselves say nothing it is very difficult to find out what they are doing. Take Goldrim for instance. Queries about this company have had to go unanswered. The interest on this side of the world originally flowed from the Canadian parent, *Goldrim Mining*.

Now the Australian offshoot has actually said something about the *tantalum prospect in the Pilbara* which originally sparked off the speculative excitement in the *shares. It is precise and decidedly* uninspiring but nevertheless worth recording. No field work was carried out in the March quarter on the property. And the shares are quoted in London at 1p. It is impossible to be hopeful. But at least the company is still in existence.

Gold sales

How far the South African authorities will be prepared to go *in with-holding newly-mined gold* from the market—it held back some 21 tonnes in the week to *June 6—in an atempt to stave off* fresh weakness in the bullion price is a moot point. This was the first retention since early-January. But one thing must be remembered by gold share investors. Just as sales from the country's reserves boost the average price received by the mines so retentions mean that *they are getting less than the* world market price. Shareholders must thus hope that this switch of *policy will be of short duration*. South Africa's weekly Reserve Bank figures are usually issued on Wednesdays.

In the meantime, there is a decided air of caution in brokers' views about gold shares although there seems to be little inclination actually to get clients right out of this section of the mining market. There is, however, a distinct tendency to favour the shares of mines with a good *uranium element as distinct from* those which produce gold alone.

Thus shares such as Harmony, *Buffels, Randfontein and* Vaal Reefs could outperform the market generally while President Brand's uranium potential should not be forgotten.

INSURANCE

Professional negligence

BY OUR INSURANCE CORRESPONDENT

IF AS a potential policyholder I go to an insurance broker, give clear explicit instructions and ask *him to arrange insurance on my* behalf, and he fails wholly or in part to get me the cover I require, *without informing me of that* failure, so that I proceed on the assumption that I am properly *insured, only to be overtaking by* a misfortune not covered but within the scope of my original *instructions, then as the law* stands undoubtedly I have a right of action for damages *against my insurance broker*.

The likely measure of those damages is the amount of the *uninsured loss I have to bear say* by way of loss of or damage to my property or by way of com*pensation that I have to pay to* some other citizen for injury or damage due to my negligence, *and so on*.

Distraction

As I make the broker my agent for the purpose of obtaining the insurance, this right to damages arises from my contract with him, even though in legal language his failure is usually termed professional negligence, and negligence in England is a tort and in Scotland a delict entirely separate and distinct from contract.

The legal distinction between contract and tort can *sometimes* be crucial to the course of litigation and an apt illustration of this is provided by the case of *Ackbar v. C. F. Green and Co. Ltd.* heard before Croom-Johnson J. and reported recently in [1975] 2 All ER 65. *The preliminary* question before the judge was whether the plaintiff Ackbar had *allowed too much time to elapse* before starting his legal action so that it had become statute barred *under the Limitation Act* 1939 as amended in 1954.

The first in the chain of events *that gave rise to this litigation* occurred in the autumn of 1966 when the plaintiff bought a lorry. *He instructed the defendant* brokers to get motor insurance for him and though at first he *said he wanted this cover* excluding passenger liability (which was not then compulsory) *later he changed his mind and* told the brokers to arrange passenger liability cover also. *However, when he was injured in* an accident in May 1967, while travelling as a passenger in his *own lorry, he discovered that in* fact no passenger liability cover had been arranged and that his *injury must therefore go un*compensated, as the driver had no means and was not worth suing.

The plaintiff issued his writ eventually in July 1972, five years after the accident and getting on for six years after the insurance had been bought. The question that Croom-Johnson J. had to decide was whether the professional negligence claim against the brokers was subject to the contractual limitation period of six years and was therefore in time, or was subject to the tortious limitation period of three *years applicable to personal* injury claims and therefore statute barred.

The law report sets out the niceties of the legal argument for those who want to follow it *through. Sufficient be it here to* note that the judge decided that the plaintiff's legal action was *subject to the six year rule* and so had been commenced in time. The judge asked himself the *question—what was the action all* about? — and gave the answer: "It concerned an alleged breach *of contract by the defendants* as a result of which the plaintiff lost his chance to recover his loss *either from the driver or from* his own insurers."

Which seems fair and reason*able, particularly as in Scotland* a similar decision had been reached on this point in 1966 in *the case of McGahie v. Union of Shop Distributive and Allied Workers*, and it would be un*desirable to have different views* north and south of the border.

Ackbar's case does emphasise *the "long tail" of claims* that have to be faced by the professional, be he insurance broker, or accountant, *or solicitor*, and his insurers. The problem as ever is how to make forward provision *not just for liabilities* that are known and quantified but also for liabilities that have been incurred but have *not yet*, so to speak, come to the surface. And the further problem for insurers, having attempted these two calculations, is to gauge the premium that will be adequate to contain claims that may have to be met up to ten years hence.

FOREIGN EXCHANGES

June 13 1975	Bank Rates %	Market Rates Day's Spread	Market Rates Close
New York	6	2.2775-2.2910	2.2830-2.2840
Montreal	8¼	2.3040-2.3450	2.3390-2.3400
Amsterdam	8	5.45-5.50	5.47½-5.48½
†Brussels	8½	78.20-79.80	79.50-79.70
Copenh'gen	8	[illegible]	[illegible]
Frankfurt	4½	[illegible]	[illegible]
Lisbon	6½	54.90-55.40	55.10-55.30
Madrid	7	127.00-127.80	127.15-127.55
Milan	7	1,425-1,451	1,426-1,428
[illegible]	[illegible]	[illegible]	[illegible]

*Basic discount. ‡Rates given are for convertible francs. Financial franc [illegible]

GOLD MARKET

	June 13 1975	June 12 1975
Gold bullion (a fine ounce) Close	[illegible]	[illegible]
Opening	[illegible]	[illegible]
Morning fixing	[illegible]	[illegible]
Afternoon fixing	[illegible]	[illegible]
Gold coins (domestically) Krugerrand	[illegible]	[illegible]
New sov'reigns	[illegible]	[illegible]
Old sov'reigns	[illegible]	[illegible]
Gold coins (int'n'nally) Krugerrand	[illegible]	[illegible]
New sov'reigns	[illegible]	[illegible]
Old sov'reigns	[illegible]	[illegible]
$20 Eagles	[illegible]	[illegible]
$10 Eagles	[illegible]	[illegible]
$5 Eagles	[illegible]	[illegible]

OTHER MARKETS

[illegible]	[illegible]	[illegible]

Rate given is the commercial rate. [illegible]

FORWARD RATES

	One month	Three months
New York	[illegible]	[illegible]
Montreal	[illegible]	[illegible]
Amsterdam	[illegible]	[illegible]
Brussels	[illegible]	[illegible]
Copenhagen	[illegible]	[illegible]
Frankfurt	[illegible]	[illegible]
Lisbon	[illegible]	[illegible]
Madrid	[illegible]	[illegible]
Milan	[illegible]	[illegible]
Oslo	[illegible]	[illegible]
Paris	[illegible]	[illegible]
Stockholm	[illegible]	[illegible]
Vienna	[illegible]	[illegible]
Zurich	[illegible]	[illegible]

Six-month forward U.S. dollar [illegible]

Tanker rates off bottom but yet to break even

BY JAMES McDONALD, SHIPPING CORRESPONDENT

TANKER FREIGHT rates last week showed a slight but definite improvement above the rock-bottom levels which have been ruling for some months but are still well below the break-even trading levels of most ships, without taking into account depreciation and interest payment.

Last week the rate for VLCC's —tankers of over 200,000 tons— *rose to over Worldscale 20 from* the previous rate of around Worldscale 15 for Persian Gulf to west voyages and a *103,000-ton* ship was taken for a similar voyage at Worldscale 35, a considerable increase for this size of tonnage.

But, despite satisfaction in the tanker charter market, there was no euphoria among tanker brokers. One pointed *out, in* reference to the 103,000-tonner, that the operating break-even point for this type of ship could be between Worldscale 45 and 60, although this figure could be reduced by slow steaming.

Another broker, John I. Jacobs, commented: "Against the background of possible crude oil price increases we could well see this trend continued."

But, Jacobs added: "It must be remembered that the trading break-even level for a VLCC is around Worldscale 30 on the basis of slow steaming so there is some way to go before owners can trade without losing money, let alone getting any return on capital."

Also threatening any major recovery in freight rates are the 30m. tons or more of tankers laid-up throughout the world because of the slump, representing over 12 per cent. of the world tanker fleet. There is also the hidden surplus represented by the slow steaming programmes of most tanker owners.

WEEKLY AVERAGES OF U.K. INDICES

Week to—	June 13	June 6	May 30	May 23
Financial Times				
Govt. Secs.	58.01	58.54	57.82	57.60
Fixed Interest	57.79	58.25	57.86	57.83
Industr'l Ord.	340.5	349.0	346.1	345.6
Gold Mines	378.3	403.9	430.1	421.9
Dealings mkd.	7,046	7,365	6,365	7,640
F.T. Actuaries				
Ind. Group	134.88	141.25	137.45	139.26
500-Share	147.50	154.04	149.45	150.65
All-Share	145.72	152.06	147.52	149.76
20-year Govt.	47.12	47.54	47.22	46.93
Red. Debs	46.05	46.16	45.76	45.65

INSURANCE BASE RATES

† Atlantic Assurance	11½%
Cannon Assurance	9%

† Address shown under Insurance and Property Bond table.

Bank base rates, Page 31

INTERNATIONAL COMPANY NEWS + EURO MARKETS

EUROBONDS

Much interest in SDR issue

BY PAULINE CLARKE

AFTER WHAT HAS been described as "a phenomenal success" for the first Eurobond to be denominated in Special Drawing Rights—the Alusiusse issue announced just a fortnight ago—much flurry now surrounds the launching of a second SDR issue.

This time it is for the State-owned Swedish investment bank, Sveriges Investeringsbank Aktiebolag, which is raising SDR 30m. (equivalent to about U.S.$37¼m.)

The extent of the welcome given to the Alusuisse issue is demonstrated by the raising of its amount since it was first set at SDR 30m. to SDR 40m. and finally to SDR 50m. (U.S.$62.5m.), coupled with a reduction in the coupon rate from 9¾ per cent. to 9 per cent. Clearly, then, the success of the issue was not entirely due in the first place solely to generous terms.

With this performance behind it and, as in the case of Alusuisse, the support of the big Swiss banks, including lead manager Credit Suisse White Weld, the Swedish loan is expected to be another winner. Hence its indicated coupon, also of 9 per cent. In addition, the new bond is for a smaller amount, although its maturity in 1982 means its life is two years longer than that for its predecessor.

Investors in the Alussuise issue have mainly been big institutions, anxious to protect themselves against the vicissitudes of the dollar. But the Arabs, too, are believed to have welcomed the issue.

The Swedish bond, unlike Alussuise, has no Arab institution in its underwriting syndicate, although this may not preclude Arabs from buying this bond as well.

The absence of an Arab underwriter is presumably explained by the inclusion of the blacklisted S. G. Warburg in the syndicate. But it may also indicate a desire by the Europeans to demonstrate — since the odds seem in their favour anyway with the Swedish bond—that the success of an issue does not depend nowadays entirely on the inclusion of Arab underwriters.

Kurabo plans to diversify

OSAKA, June 15.

KURABO INDUSTRIES, a major Japanese spinning company, is pushing forward a diversification programme centering on pollution-control equipment, to help offset deteriorating conditions in its traditional line of business.

Mr. Shusuke Yoshida, managing director, said that the company plans to increase sales of pollution-control equipment to Y10bn. in the year ending April 1976. Sales in this sector totalled Y1.9bn. in the six months ended April.

Overall, the company aims to have non-textile products, which include chemicals as well as machinery, eventually account for 20-30 per cent. of sales, not 12 per cent. as at present.

Kurabos sales for the six months ending October are expected to rise and operating results, which are mainly influenced by the textile sector, will show an estimated Y1bn. deficit in the October term against a Y2.88bn. deficit (estimated) for the six months ended April 25. Kurabo had an estimated net loss of Y80m. in the six months ended April and a Y815m. net loss for the October 1974 term.

Managing director Mr. Eizo Makiuchi attributed the company's performance in the April term to higher raw material and labour costs, to poor price trends for finished goods and to a 33 per cent. cutback in operations in the cotton and synthetic fibre sectors.

Although severely reduced operations are expected to continue toward the autumn, lower prices for raw materials, like cotton, and the full impact of a recent 19 per cent. reduction in the company's labour force to 7,100 workers are expected to cut costs. In addition, the company expects some relief from an upward trend in the price of finished products.

Mr. Yoshida, who oversees the pollution-control sector, said that he does not believe that it will be difficult for the company to achieve its Y10bn. sales goal in this area. He cited increasing hazard-control regulations at home and abroad.

Kurabo is ranked only seventh in Japan's exhaust-gas desulphurisation field in terms of the overall processing capacity of systems shipped. But the company comes first in terms of number of installations with 105, valued at about Y7bn., Mr. Yoshida said. He explained that Kurabo, which entered the pollution-control field about five years ago, specialises in smaller-sized installations.

AP-DJ

Indices

NEW YORK

DOW JONES AVERAGES

Close	Home Bonds	Transport	Indus.	Util.	Trading volume† 000's
June 13	68.76	167.65	834.47	81.90	16,300
12	68.58	167.69	819.31	81.61	15,970
11	—	169.21	834.65	81.51	18,230
10	68.27	162.28	822.12	81.80	21,130
9	68.04	170.07	830.10	82.21	20,670
6	67.91	170.52	839.64	82.82	22,230
5	67.78	168.72	842.16	82.82	21,610
4	67.89	168.82	839.96	83.01	24,900
3	67.79	168.88	846.14	82.37	26,560
2	67.35	169.04	846.61	80.71	28,240
May 30	67.82	167.85	832.29	79.82	22,670
29	67.81	165.72	816.00	78.64	18,070
28	67.85	166.64	817.04	77.46	21,850
27	67.86	166.93	836.11	77.45	17,050
25	67.89	167.98	831.90	77.17	17,870
22	67.90	166.87	818.91	77.25	17,610
1975 High	69.92 (4/4)	174.12 (5/5)	858.73 (14/5)	86.01 (4/6)	—
Low	65.16 (3/1)	146.47 (2/1)	632.04 (2/1)	72.02 (2/1)	—
All-time High	—	279.88 (7/2/69)	1051.70 (11/1/73)	163.32 (20/4/65)	—
Low	—	16.28 (8/7/32)	41.22 (8/7/32)	10.58 (28/4/42)	—

† Excluding bonds.

IND. DIVIDEND YIELD p.c.

June 6	May 30	June 7, 1974
4.59	4.63	4.32

N.Y. SE ALL COMMON INDEX

December 31, 1965=50.

1975 High	1975 Low	June 13	June 12	June 11	June 10	June 9
49.35 (3/6)	37.06 (2/1)	48.20	47.85	48.18	48.12	48.64

RISES AND FALLS

Issues traded	Up	Down	Unchanged
1,782	809	555	428

	June 13	June 12	June 11	June 10	June 9
New Highs	43	44	61	52	109
New Lows	6	5	7	2	5

AMERICAN SE MARKET VALUE INDEX

Starting base 100 Aug. 31, 1973.

1975 High	1975 Low	June 13	June 12	June 11	June 10	June 9
90.71 (5/6)	62.20 (2/1)	89.45	89.01	89.51	89.27	89.88
Volume 000's		2,000	2,054	2,270	2,570	2,740

U.S. STOCK INDICES STANDARD AND POORS

	*Industrials	†Composite
June 13	101.55	90.52
12	101.06	90.08
11	101.63	90.35
10	101.50	90.44
9	102.39	91.21
6	103.57	92.48
5	104.17	92.69
1975 High	104.49 (3/6)	92.89 (3/6)
1975 Low	77.71 (8/1)	70.74 (8/1)

* 425 Industrial. † 425 Industrials, 50 Utilities, 25 Rails.

STOCK AND BOND YIELDS

	June 12 1975	June 4 1975	June 12 1974
Ind. Ord. yield pc	3.73	3.64	3.30
Ind. Ord. p/e ratio	11.92	11.28	11.36
Long-term Govt. Bds. per cent.	5.71	5.91	6.30

FRIDAY'S ACTIVE STOCKS

	Stocks traded	Closing price	Changes on day
Texaco	280,800	26	+⅛
Occidental Petroleum	288,000	18⅜	−⅛
Williams	248,000	31⅛	−1⅛
Searle G. D.	215,300	19⅜	+⅛
General Motors	151,700	43⅞	+¼
Pittston	141,800	69⅞	−2⅛
Gulf Oil	138,300	22⅜	+¼
Howard Johnson	110,900	12⅜	+¼
Whittaker	110,400	4	+⅛
Xerox	104,900	68⅜	−⅛

TORONTO

INDUSTRIAL INDEX

June 13	June 12	1975 High	1975 Low
1.55	154.92	159.68 (14/3)	130.41 (3/1)

MONTREAL

INDUSTRIAL INDEX

June 13	June 12	1975 High	1975 Low
194.18	193.37	1997.05 (14/3)	158.95 (2/1)

COMBINED INDEX

June 13	June 12	1975 High	1975 Low
188.31	187.59	191.02 (14/3)	158.02 (2/1)

JOHANNESBURG

	June 13	June 12	High	Low
Industrials	224.8	222.6	224.8 (13/6)	183.0 (23/11)
Golds	315.0	314.2	379.1 (2/1)	253.2 (15/4)

1958=100. Source: Rand Daily Mail. *1974.

MELBOURNE YIELDS

Av'ge yield on 50 Leading Stocks	June 12	June 6	May 29
On Dividends	7.11	7.02	7.13
On Earnings	13.67	13.49	13.67

SYDNEY ALL ORD. INDEX

June 13	June 12	High 1975	Low 1975
370.13	374.32	387.27 (5/6)	288.88 (9/1)

TOKYO NEW SE INDEX

Base=100 January 4, 1968.

June 13	June 12	High 1975	Low 1975
327.08	327.63	332.96 (22/5)	268.24 (10/1)

HONG KONG INDEX ◆

June 13	June 12	High 1975	Low 1975
333.97	335.41	341.57 (9/6)	160.42 (9/1)

SINGAPORE INDEX §

June 13	June 12	High 1975	Low 1975
234.08	233.92	268.69 (11/3)	155.26 (8/1)

EUROPE

	June 13	Previous	1975 High	1975 Low
Belg'm (a)	110.11	110.52	111.81 (15/5)	89.01 (2/1)
Denm'k (b)	92.80	92.71	92.30 (13/6)	75.36 (15/1)
France (d)	64.7	66.1	72.6 (23/4)	51.70 (2/1)
Germ'y (e)	655.0	666.0	728.1 (12/4)	575.5 (2/1)
Holland (f)	101.1	100.7	107.6 (6/5)	85.8 (2/1)
Italy (g)	97.06	97.43	108.8 (21/2)	85.9 (8/1)
Spain (h)	99.51	100.19	110.98 (22/4)	96.88 (10/1)
Sweden (k)	363.31	365.68	376.65 (16/5)	311.5 (8/1)
Switz'rl'd (m)	268.7	270.4	280.1 (6/6)	206.2 (2/1)

Indices and base dates (all base values 100):—(a) Belgian S.E. 31/12/63. (b) Copenhagen S.E. 1/1/73. (d) Paris Bourse 1961. (e) Commerzbank December, 1953. (f) Amsterdam Industrial 1970. (g) Milan General 2/1/73. (h) Madrid S.E. 31/12/74. (k) Stockholm Industrial 1/1/58. (m) Swiss Bank Corp. 31/12/58. (u) Unavailable. ◆ Hang Seng Bank 31/7/64. § Straits Times 1966. (c) Closed. † Adjusted.

AUSTRALIAN WEEKLY LIST

Australian $	June 13	June 6	Australian $	June 13	June 6
[illegible]			[illegible]		
Carpenter (W.R.)	1.20	†1.15	Queensland Cement	1.23	†1.25
Castlemaine Perkins	†3.27	†3.25	QBE	0.62	†0.60
Coal & Allied	2.36	†2.40	Roda Industries	†0.88	†0.85
Commercial Bank	†2.55	†2.60	Swan Brewery	1.35	†1.35
Commercial Union	0.31	†0.30	TV Corporation	2.15	†2.10
Commonw'lth Mining	†2.05	†2.10	Thiess	2.20	†2.25
Grace Bros.	1.35	†1.38	Thomas Nat. Trans.	1.14	†1.15
Hardie Asbestos	†3.35	†3.30	Tooheys	1.40	†1.40
Herald & Weekly	1.72	†1.72	Travelodge	0.26	†0.26
Jumes	†0.71	†0.68	Woodside Burmah	†0.65	†0.72

† Buyer. ‡ Seller.

TEL AVIV STOCK EXCHANGE

Company	Prices June 15 1975	Change on the week	Company	Prices June 15 1975	Change on the week
Banking Insurance and Finance			**Investment Companies**		
Bank Leumi Le Israel	214	+14.0	Bank Leumi Invest	167	+15.0
I.D.B. Bankholding	216	+12.0	Discount Bank Invest Br.	185.5	+11.0
Bank Hapoalim Br.	226	+10.5	"CLAL" Israel Invest	190	−11.5
Union Bank of Israel Br.	233	+18.0	"CLAL" Industries	119.5	+3.0
United Mizrachi Bank	165	+15.0	**Commercial and Industrial**		
Hassneh Insurance Br.	272	+14.0	Alliance Tire & Rubber	401	+66.0
Wolfson Clore Mayer Br.	83	+5.0	Elco Br.	159	+10.0
General Mtge. Bank Br.	198	+11.0	Argaman Textile Br.	248	+45.0
"Tefahot" Israel Mort. Bank Br.	244.5	+13.5	"Ata" Textile "B"	96.5	+14.0
			Dubek Br.	425	+33.0
			Elec. Wire & Cable Br.	141.5	+15.5
			Solel Boneh 10% Pref. Br.	171	+14.0
			American Israeli Paper Mills	277	−3.0
Land Development			Assis	190	+32.5
Africa Israel Invest I£ 10	264	+40.0	Taal Manuf. of Plywood Br.	111	+9.0
Israel Land Devel. Br.	105	+9.0	Elite	222	+19.0
Property and Building	161	+3.0	Polygon	124.5	+15.0
Mehadrin	201	+3.0	**Fuel and Oil**		
Public Utility					
Israel Electric Corp	150	+10.0	Delek	168.5	+10.5

Source: Bank Leumi Le Israel, Tel Aviv.

HONG KONG

Hong Kong $	June 13	June 6
Government Loan	85.00	85.00
Amalgamated Rubber	1.48	1.50
Bowaters	15.00	15.00
Cathay Securities	2.025	2.00
China Light & Power	14.60	14.50
City Hotels	21.50	22.40
[illegible]		

SINGAPORE STOCKS

June 13	$	June 13	$
Industrials		Straits Times	4.00
		StraitsTrad'g	4.50
		Temenggong	1.54
		U. Engineers	1.37
Bovis	0.57	Wearne	1.78
Boustead	4.50	Tractor	3.12
Dunlop	3.14	Chemical	4.16
[illegible]			

CANADIAN WEEKLY LIST

[illegible]

JOHANNESBURG

MINES

[illegible]

INDUSTRIALS

[illegible]

AUSTRALIA

[illegible]

Amsterdam Rubber suspended

AMSTERDAM, June 15.

TRADING IN Rubber [illegible] Mij Amsterdam was [illegible] until further notice [illegible] to the Amsterdam [illegible] Exchange Association. The suspension of trading [illegible] requested by the Foundation [illegible] Social Shareownership.

The move followed fears that an unnamed big shareholder might use fore-knowledge of the annual report—which may have been circulating in the commission of shareholders for some time—to sell his shares. The fear was caused by the decline in Amsterdam Rubber this week from Fls.156 to Fls.129.

Reuter

GERMANY ◆

[illegible]

AMSTERDAM

[illegible]

MILAN

June 13	Price Lire	+ or −	Div. Lire	Yld. %
Alitalia Priv.	1,250	......	—	[illegible]
ANIC	901	+0.75	60	[illegible]
Anbonia Ass.	4,760	−10	130	[illegible]
Bastogy	1,495	−6	70	[illegible]
Breda	2,560	+20	150	[illegible]
Burgo	14,300	+100	330	[illegible]
Centeni	9,999	−1	300	[illegible]
CIGA	1,805	−26	—	[illegible]
[illegible]				

TOKYO ¶

[illegible]

VIENNA

[illegible]

BRUSSELS

[illegible]

PARIS

[illegible]

SWITZERLAND ●

[illegible]

SPAIN ♥

[illegible]

COPENHAGEN

[illegible]

STOCKHOLM

[illegible]

OSLO ◆

[illegible]

CANADA

[illegible]

Investment premium based on $2.60 per £1—31¼% (35¼%)

OVERSEAS SHARE INFORMATION

NEW YORK

1975 High	1975 Low	Stock	June 13
54¼	28⅞	Corning Glass	53
44	32⅝	CPC Int'nation'l	43⅝
24¼	19¼	Johns Manville	20¼
98⅞	72¼	Johnson Johnson	94
8¼	5¼	Rapid America	6⅛
54¾	25¼	Raytheon	54⅛
20¼	10⅜	RCA	18¾
[illegible]			

NOTES: Overseas prices exclude S premium. [illegible]

FINANCIAL TIMES SURVEY

Monday June 16 1975

Machine Tools

The machine tool industry remains basically in good shape, although the current downturn in investment is having its inevitable effect on order books. The recession serves to illustrate once again the problems of the trade cycle, for which an effective solution has yet to be found.

Deserving of a better image

"IT IS a very good and very successful industry which exports well and has a reputation for first-clas design For many companies it is a good industry to be in." This is the machine tool business as seen by an interested "outsider," Mr. Anthony Frodsham, chairman of the machine tool Economic Development Committee (the Little Neddy).

He admits that when he took over this job about two years ago he did so "with a fairly jaundiced eye. I thought, as do so many others, that the industry was in a bad state." He now knows "this was not the case at all. The industry as a whole has been affected by the adverse publicity given to one or two large companies."

It continues to be true that in the U.K. the "image" of the machine tool industry can do with a good deal of polishing. There is a certain amount of wounded pride involved, of course. The many successful companies in the industry would prefer their contribution to the economy to be better recognised. But there is also a more practical side to the situation. The distorted view that this is a moribund industry has an appalling effect on recruitment—be it for the shop floor or for management. What bright young man would want to go into an industry which was supposedly dying a slow death? And even people who consider themselves well informed about the industrial scene often fail lamentably to understand the machine tool sector.

In a speech to the annual meeting of the Machine Tool Trades Association last month, the retiring president, Mr. Tony Galliers-Pratt summed up the situation in this way. "There still remains a high proportion of people who the association wishes to educate but who remain almost totally ignorant of the aims, aspirations, problems, disappointments, fears and even achievements of one of the most technologically advanced areas of engineering science in this country.

"Unsolicited advice continues to be available on all sides, be it through the columns of our papers, from academic theoreticians, from consultants, or even from Government departments. All have their own particular solutions or advice to offer on how to overcome both actual and imagined problems of the industry: solutions embracing rationalisation, nationalisation, capital investment schemes or perhaps group technology. Alas, the fact remains that, however well-intended, the advice is far too often based on a premise which totally ignores the facts.

Oblivious

"There are still countless persons who speak of the area of technology encompassed by machine tools in the same breath as a lawn mower. The industry's critics remain oblivious of its contribution to the U.K.'s balance of payments over the past five years. They are astonished to learn that there are currently over 3,000 types and sizes of machine tools, ranging in price from a few hundred to many thousands of pounds.

"They disregard, because it suits them or they are too lazy to discover, that the British machine tool industry stretches from Angus to Cornwall, and from Gwynedd to Norfolk. They are amazed at the size of the industry's annual turnover (around £250m.) and have no idea of the numbers employed by its companies (roughly 47,000). They even equate the troubles of one organisation with the whole industry."

This last remark—although Mr. Galliers-Pratt did not identify the company at the time—refers to the much-troubled Alfred Herbert, once Britain's biggest machine tool company and now still well up there among the "top eight" as far as turnover goes.

It is doubly unfortunate for the industry to have such a troubled giant among its prominent companies. The confusion of Herbert's problems with those of the whole industry exists not only in the U.K. Too many customers for machine tools throughout Europe have come to make the same mistake.

In the words of Mr. Derek Hartle, chairman and chief executive of Hartle Machinery International: "The experience of that company (Herbert) has strained the credibility of the British machine tool industry. There are many fine British machine tool companies that have done and are still doing well. In addition, it is an industry that is labour-intensive and of strategic importance. Unless it can get a better rating we will find it increasingly difficult in the future to encourage further investment. The consequences are obvious, because without this investment essential research, development and the re-equipping of factories will suffer, permitting overseas competition to encroach still further on what are traditionally British markets both at home and overseas."

It is true that, as far as the Press is concerned, good news does not rate the big headlines and it is not only the machine tool industry which understands that from bitter experience. But most other manufacturing industries are lucky enough to escape the headlines associated with disaster. While the Alfred Herbert situation drags on the machine tool industry will continue to get more than its fair share of adverse publicity.

At the same time very little credit will be given to those successful companies in the industry — and that is the vast majority — which will struggle through the current recession, still contributing to the balance of payments, still employing skilled men and still making profits.

This in spite of the fact that the current recession appeared on the horizon much earlier than expected and that a combination of the energy crisis and three-day working, and shortages of steel and components, helped prevent the machine tool companies make the most of the boom while it lasted.

For many years the U.K. machine tool industry has been putting forward the idea that the Government should implement a scheme aimed at countering the effects of the demand cycle. The industry knew instinctively that it was among the major sufferers from the cycle. Last year flesh was put on the bones of this notion when the machine tool Economic Development Committee issued a discussion paper on the subject.

It made depressing reading. It outlined the debilitating effects of the cycle on the industry—and on others which supply the country's capital goods. It said the cycle creates an uneasy workforce, saps competitiveness overseas, encourages imports and cuts cash flow and profits as often as two years in every five.

Harder hit

It did indeed show that the machine tool industry was harder hit than any comparable industry. It revealed that the standard deviations from "normal" in U.K. demand for machine tools over the 14-year period it covered was 24½ per cent. As a result, falls in employment by the industry during a recession had been as high as 33 per cent., accompanied by a severe decline in the intake of young people. It had proved impossible to get back many of these skilled people when they were needed as the cycle of demand started on the upward curve. Those who remained in the industry were worried about their future prospects and, naturally, a good many of them looked elsewhere for employment when the opportunities arose.

The Little Neddy paper pointed out that returns on capital employed in the industry can decline by as much as 40 per cent. during the periods of downturn. The unstable conditions cut cash flows and profits, make the raising of further finance very difficult, cause the machine tool makers to invest more cautiously and to keep the size of their operations too small rather than too large.

This combination of lack of capacity and shortages of skilled labour have the effect of putting an intolerable strain on the industry when the surge in demand follows the trough. Delivery dates are extended, so overseas orders are lost and imports encouraged.

The trouble is that the effects are not reversed when demand subsides. In the machine tool sector a distinct "ratchet effect" is noticeable, with increases in import shares during the upturn of the cycle exceeding falls in the downturn phase, the Little Neddy pointed out. In other words, once imported machines established themselves in the U.K. it is difficult to dislodge them.

Latest statistics substantiate this argument. Last year, in spite of a best-ever performance by the U.K. machine tool industry in exporting £107m. of equipment, the favourable trade balance fell from £18.5m. for 1973 to around £7m. The trade balance has been shrinking steadily since 1971 when it reached £46.6m. The following year it was £31.7m.

It is not that easy to establish the real size of the problem, however. For it would be impossible for the U.K. manufacturers to supply all the 3,000 types of machine tools Mr. Galliers-Pratt mentioned. International specialisation and trading is a traditional part of the business. This fact, and the impact of the cycle, has encouraged some companies to give up manufacture completely and turn themselves into purely importers or agents. And most of the successful British machine tool concerns include imported machines among those they market in the U.K.

The Little Neddy put forward a number of counter-cyclical schemes for discussion. The one which the industry generally favours involves an investment reserve fund under which companies would be encouraged to set aside a proportion of their earnings in any year to a special reserve which they would then use for investment purposes during a recession. They would be actively discouraged — though not prohibited—from using this cash during the boom periods.

The Council of NEDO — which is the national forum for economic consultation between Government, management and unions — has put its weight behind the idea that there should be a counter-cyclical scheme, but so far the Government is still to be finally convinced that one is needed.

At the moment, with manufacturing industry struggling to make profits, there is certainly no spare cash around to start the kind of fund the machine tool Little Neddy has in mind. But there is time to prepare a scheme in time for the next upturn in trade — which most machine tool men in Britain believe will come for them no sooner than the middle of 1976.

The industry is also attempting to head off any problems which might arise with the massive (£200m.) investment programme for British Leyland. Preliminary discussions between the MTTA, British Leyland and the civil servants involved in the financial rescue operation have established that Leyland will, if possible, attempt to place its orders for machine tools outside the peak demand periods and try to give the industry reasonable notice of its requirements.

Meanwhile, the U.K. machine tool industry is running out of work. By October it expects to be deep into the heart of the recession. Mr. George Trowbridge, new president of the MTTA, has pointed out that the U.K. manufacturers have been suffering from a downturn in new orders since last October and this situation would take roughly a year to work through to the manufacturing operations. For some companies the crisis would arrive earlier.

Downturn

For the first four months of this year new orders for machine tools have been between 30 and 50 per cent. below the level for the same period a year ago. The downturn has been particularly severe for those companies which make standard machine tools, although there are exceptions, and for those whose main business was serving the motor manufacturers.

Exports have held up well for most of 1975 so far and many manufacturers say more than 60 per cent. of their order intake is from overseas (last year the sales percentage was 47 per cent.) but this takes into account the sad decline in home market situation. Now the U.K. inflation rate is outpacing the advantages of the downward float of sterling and in some sectors the U.K. manufacturers feel they are bumping up against the price ceiling when quoting for overseas orders.

On the brighter side, many people agree with Dr. Adolph Frankel, managing director of Staveley Industries, who believes that the bottom of the current recession will not be as low as the one three to four years ago. His point is that capital investment in U.K. manufacturing industry has been so low for so long the industry simply must invest soon. And at Tube Investments' machine division, Mr. George Ashton, chief executive, reckons that the order situation has improved of late so "perhaps we are gently bumping off the bottom of the trough already."

Kenneth Gooding
Industrial Correspondent

Production line at Charles Churchill—part of the Tube Investments group—for the assembly of automatic chucking lathes.

Paris exhibition on a world scale

THE EXHIBITION which opens in Paris to-morrow under the curiously inelegant title of 1 EMO (Exposition Mondiale de Machines-Outils) will be one of the largest and geographically most comprehensive displays of machine tools, machine tool accessories and associated equipment—such as machines for the hardening, thermal processing and surface processing of metals connected with machining—ever put together in one place. Behind it lie 25 years of developments in competitive co-operation by the European machine tool industry.

For it was in October, 1950, that CECIMO—the European Committee for Co-operation of the Machine Tool Industries, and the body putting on 1 EMO —was born. And right from the outset the organisation, which links the machine tool trade bodies in 13 countries (Austria, Belgium, Denmark, France, Italy, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, West Germany and the U.K.) and thus covers some 1,500 individual machine tool companies throughout Western Europe, has had as one of its major aims the establishment of sufficiently comprehensive, specialised machine tool exhibitions to make such events worthwhile for manufacturers, considering the considerable expenses involved in exhibiting.

Problems

The problem had been that exhibitions in which machine tool manufacturers were being urged to participate were not necessarily specialised enough to attract the potential buyers whose presence could, in the end, be the only justification for paying out the large sums of money needed to mount a display. At the same time, a second, associated problem was that when the buyers were assembled the exhibition itself might well be insufficiently comprehensive to have made their visit worthwhile. There was little opportunity for buyers to see everything, or virtually everything, of interest under one roof; and there was no single, centralised, source of information.

This was the sort of situation CECIMO's founders resolved to overcome. To an extent, and without denigrating their past efforts, one might say that it is only now with 1 EMO that they have done so. For the European machine tool exhibitions that the organisation has held regularly since 1951 (at first annually but latterly every two years) have been restricted to manufacturers from member countries only. That they have been a growing success cannot be disputed: the first, in Paris, occupied 25,672 square metres with stands and attracted 829 exhibitors; the tenth, and largest, in Hanover in 1967, had stands covering an area of 93,165 square metres occupied by 1,368 exhibitors. The last of these exhibitions, in Milan four years ago, had 1,067 exhibitors and stands covering an area of 63,937 square metres.

The Milan exhibition formed part of what was becoming a crowded exhibition calender for machine tool makers. The years of the major European shows organised by CECIMO were years avoided by the organisers of other displays. (Indeed, manufacturers covered by CECIMO may not exhibit machine tools elsewhere in years when there is a CECIMO-organised exhibition.) But in between was a plethora of shows. Thus, 1972 saw major exhibitions in France, Italy, the U.K., Japan and the U.S. (and next year's machine tool exhibition calender is just as full, with exhibitions in the same countries on the stocks). What did not exist was a European exhibition in which every manufacturer of any importance throughout the world was represented.

CECIMO's decision to change this by considerably broadening the scope of its own display came after the Milan show and was spurred by the decision of America's National Machine Tool Builders Association to make its four-yearly Chicago show an international event and to hold it every two years. Thus was 1 EMO born.

Objectives

This, then, is the prelude to what is being billed as the "first worldwide machine tool exhibition." What is the show itself meant to achieve? The organisers are in no doubts. It should, they say:—

Provide machine tool users with an opportunity to see and compare products from all over the world at a single exhibition;

Induce a still greater orientation of production towards user requirements and assist contacts between manufacturers and buyers (important, because a third of all new developments are stimulated by customers' demands);

Inform manufacturers on competitive products, thus promoting collaboration between them (for instance, through licensing agreements);

Stimulate the dialogue between science and industry;

Facilitate optimised investment policies in individual undertakings by presenting a comprehensive view of the state of the machine tool art at suitably short intervals.

For the companies taking part things can, perhaps, be put somewhat more simply. Thus Bennett Tools, a Tube Investments subsidiary, is one of the many U.K. companies mounting a display at 1 EMO. And it sees it as part of a major sales drive into Europe, and into France in particular. The aim, it says, is "to capture a substantial share of the French market for spring-making equipment. . . . Our major competitor for this market, the indigenous French producer, has recently moved from Paris, the centre of the spring-making industry, to the South of France so that we in England (Bennett is based at Redditch) are now just as close to the market as the French manufacturer." Thus for Bennett Tools and for many companies like it the fact that the exhibition is the premier machine tool exhibition in the world this year is only as important as the fact that they are showing their products in Paris for the first time.

How successful the show will be from the point of view of its organisers and the companies exhibiting will be known only after it is all over and the Parc des Expositions at the Porte de Versailles has been cleared, the receipts checked, the follow-up visits made, and so on. What is apparent now is that the auguries for success are there.

About 1,300 exhibitors will be taking part, representing practically every country with a machine tool industry of its own —25 States in all—and occupying 90,000 square metres of stand space. These figures are the more impressive in view of the difficulties facing the machine tool industry throughout the world. Also impressive is the degree of foreign participation in terms of overseas (that is, other than French) companies' share of stand space —something like 80 per cent.

Britain's contribution to the exhibition is, perhaps, not quite as impressive as that which can be claimed by other countries. Seventy-five U.K. makers of machine tools and components between them accounting for around 75 per cent. of the British industry's turnover by value—are taking part. But they have booked less space than the manufacturers of each of four other major machine tool producing countries—West Germany, France, Italy and Switzerland—a fact which has

CONTINUED ON NEXT PAGE

Advances in numerical control

FOR THIRTY YEARS or so numerical control has been taken to mean the automatic guidance of a machine tool so that its cutting edge follows the path required to produce the desired shape in the feedstock.

In the earlier years of the period, the label "automatic" covered sequence control over necessary functions of the unit—like starting drive motors before initiating cutting—plus the use of hardwired controllers fed by punched or magnetic tape. Generally, input information was limited to specifying the final position desired and the nature of the cutting path. The controller calculated the necessary travel velocities along the axes and started operations, guiding the work through velocity servos.

These calculations were, and still are, performed on demand by hard-wired logic which some call a computer, but which does not strictly qualify for that designation. *A great deal of* work has, however, been done in the last ten years to get true computers much more closely involved in numerical control in several different ways.

Mini-computers began to be used some five years ago to supervise component geometry development in a function now called computer numerical control or CMC. But before that, several projects were afoot to do the rather difficult job of *adaptive control which requires* a central computer constantly to supervise the performance of a group of machine tools, providing instant warning to the operator if one or other of the units is starting to produce parts whose dimensions are moving towards tolerance limits.

Enhanced

It was also suggested at the time that the in-process gauging could be combined with modification of machine settings from the central point. This *would have ensured that no* parts would have been out of tolerance and machine performance would have been considerably enhanced.

To these systems should be added direct numerical control, in which the central computer also supervises the flow of parts from machine to machine in a strict machining sequence along a group of controlled tools.

The path to the realisation of *these highly specialised forms* of automatic data processing may have been full of technological glory, but certainly was not easy to follow, despite a large amount of Government backing in the U.K. through the then Ministry of Technology. Even the spur of military and space work in the U.S. was inadequate to overcome some of the problems, especially when it came to writing completely new programming languages.

At one time, minicomputer builders were confident that the "old-fashioned" methods of *controlling machine tools were* dead and that it was only a question of time before each tool had its own miniprocessor.

Five years have gone by and this has not happened, not least because the mini-makers found the operation of interpolation required their machines to perform calculations at speeds of 10,000 a second while looking at data input, machine tool logic and velocity loop requirements.

This placed a heavy burden on the designer and made the softwall system complex and expensive—so the question was asked who would pay for the applications work. A way was found around the problem, but it is significant that Plessey (Britain's major numerical *control system company*) is only now beginning to promote advanced machine tool control based on a minicomputer known for the excellence of its software and brought in from the U.S. for incorporation into Plessey systems at Poole, Dorset.

Challenged

But already the mini is being challenged by the makers of *micro-computers*, machines in which all logic and memory are concentrated on a handful of large-scale integrated circuit chips, instead of using one or two printed circuit boards full of components. At the same time, advances in circuit technology such as this have enabled *electronic engineers to* plan and design sequential control systems on the basis of integrated circuit read-only memories. These can be pre-programmed and altered at will to suit changes in operations. Thus, where minis were beginning to displace special purpose controllers, the latter, in new electronic liveries, are making a comeback.

In Britain, there have been many setbacks to domestic industries under constant heavy pressure from some of the largest companies overseas. Combined with this has been *the extreme* cyclical nature of the ordering pattern for machine tools and the intolerable chopping and changing in the policies of the sponsoring Ministry with changes in Government.

Nevertheless, the point has been made by former Industry Secretary Anthony Wedgwood Benn that British industry is ill-equipped compared with major competing countries. It remains to be seen whether U.K. companies are to be re-equipped by making this a worthwhile taxation exercise, or whether ceaseless—and useless—precept will be used.

There can be no doubt that numerical control methods are the key to productivity—indeed *even a simple digital gauging* display can do a great deal this way—or that in the past U.K. developments have been too ambitious and have not looked closely at what the small company needs. And apart from one praiseworthy exception, no attempt has been made to take new *developments in mobile* workshops right to the factory yard, so that management and workers can judge of the improvement without the trauma of buying and installing untried equipment.

Although a great deal has been written on extrusion and *powder metal techniques*, metal cutting is unlikely to be challenged to any great degree in all but the most highly specialised instances for many years to come.

Even within the smaller company it is time to consider the integration of the design operation with the shop floor work since it already is quite simple to go to one or other of the computer bureaux operating design software packages and, using a keyboard and display, finalise a part design in a few minutes, producing a machine control tape by the way. This is a relatively simple improvement to bring in but it saves valuable time and cuts out a great deal of humdrum routine. Tedious measurements likewise can be cut out by using a digitiser.

Recording

There is a case for even greater integration of the whole operation from design to quality control since the solid-state electronic equipment now available will stand up to tough conditions and since highly reliable gauging machines can be made part of a production line.

These inspection machines, which can only with difficulty be divorced from a high accuracy machine tool line, are themselves being automated and the Ferrant! Conquest unit, for instance, can be used to prepare a numerical control tape by using the gauging probes to explore and describe a master component. It is of special importance where the user has no in-house computer department or knowledge of programming techniques.

This gap in many engineering companies' knowledge has been seized on by such companies as Kremer Automation, which offers an automatic control system for machine tools, both new and existing, which is described as "self-programming." Suitable for even the small company which does a large number of one-off jobs, it records the sequence of manual operations, including tool changes, on magnetic tape cassettes. When another component of this type is needed, all the operator has to do is play the recording in the control console. The same applies to repeat patterns of operations.

Whether the attraction of new cutting materials providing far higher working rates will speed design changes in tools and controllers is a matter for conjecture. Certainly users have in the past tended to hold on for too long to the machines they know. The spur of competition from users of sophisticated equipment abroad and the worsening shortage of highly skilled operators may bring in numerical control equipment for reasons *other than productivity* — because it will be the only way to produce high quality components.

Ted Schoeters

Growing international exchanges

WHILE MACHINE tool industries throughout the world have come to accept the cyclical nature of their business, there have been few periods when international markets have together found themselves at the same stage in the demand pattern. *In short, machine tool* manufacturers in virtually every industrialised nation throughout the world are suffering at the hands of a recession which shows little sign of ending and, because of their common experience, there is nowhere else they can turn to for business.

It is against this sombre *background that* the First Worldwide Machine Tool Exhibition is to open to-morrow in Paris and while it could be claimed that this hardly represents the right atmosphere in which to stage such a show, there is equally little point in launching such a massive promotional campaign when demand is high and manufacturers are straining capacity.

Set-backs

Of one thing, however, the 1,300 exhibitors at Paris can be assured. There is no country in the world which can be self-sufficient in the range of machine tool equipment necessary to supply the needs of industry and the continuing development, therefore, of world trade in this market can be counted on to continue in the future, despite the *current* set-backs.

What happens and who benefits when the world manages to drag itself out of recession remains to be seen, but a look at the present com*position of world trade in* machine tools and the way in which it has recently been developing gives some clues to the future.

To begin at home, the picture has not recently been an encouraging one. Figures for 1974 show that the U.K. only narrowly avoided becoming a net importer of machine tools, despite the British machine tool manufacturers' substantial achievement of boosting exports to their best-ever level of nearly £107m., compared with only £84m. the previous year. At the same time, however, the U.K. also imported no less than £99m. worth of machine tools, leaving a favourable balance of trade of only about £7m. The main cause of the narrow trading gap was the decreasing value of the pound compared with the currencies of other major trading nations, and with the number of manufacturers of heavy machine tool equipment —that is, expensive machinery —*being steadily reduced in this* country, the value of imports has risen, a trend which has been further encouraged by the growing number of home manufacturers who have opted for marketing rather than actual production.

Even the remaining manufacturers *have been importing* items of foreign equipment to supplement their own ranges and delays in delivery by home *suppliers* have also helped imports.

Hydro NC540 lathe—product of Hydro Machine Tools, part of the 600 Group—at the Inverin, County Galway, works of Hydro Marine International Inc.

At the moment, however, *demand is well down* and the volume of imports can be expected to drop back as a result. Exports, however, may hold up rather better, with the continuing devaluation of the pound helping to make British goods abroad more attractive, despite the flat international market. In the first two months of this year, it looks as though exports stood at a little over £23m. while imports stood at *about* £19m.

In the world league, Britain is certainly not the force it once was, as shown by a quick glance at international trade figures for machine tools issued by the European Committee for Co-operation of the Machine Tool Industries.

According to the Committee, the West Germans now stand supreme as the world's largest *exporter of machine tools. Sales* by German manufacturers throughout the world last year reached nearly \$2bn., four times as high as the next major competitor on the international scene, the Americans. After the U.S. came Switzerland, East Germany, Italy and then Britain.

In terms of imports, Russia last year topped the list with \$367m. of foreign manufactured machine tools purchased; next came *France*, then *Poland* and the U.S. Britain stood in seventh place in the importing league.

As far as actual production *was concerned last year*, Germany remained in first place ahead of the U.S. and Russia, with Japan, Italy, France and Britain following. The Russians were at the head of the list of consumers, with the U.S. in second place and Japan third. Britain could only *manage* eighth position, a statistic which says something about the current levels of investment by British industry.

Customer

Of the U.K.'s major export markets, the biggest single customer last year was the U.S., which took nearly £13m. of *machine tools, while by comparison*, the EEC countries bought nearly £26m. of equipment. It is hoped that East Germany may also become a major customer for British equipment, perhaps taking up to £12m. of equipment a year compared with the negligible level of exports recorded in the past. Russian business, too, is expected to increase.

The most successful nation in terms of selling machine tool equipment to the U.K. was predictably West Germany, with almost three times the level of *sales as those achieved by its* nearest rival, the U.S. Italy came third and France fourth.

West Germany's outstanding performance *in the machine* tool markets of the world stands as an example to industrialised nations throughout Europe and beyond. With a workforce of around 110,000, the country's 500 machine tool manufacturers are now out-producing every nation which defeated it during the last war. Since 1970 the country's machine tool sector has held an international lead which it confidently expects to keep.

Perhaps the most remarkable aspect of the West German's success is that it has been *achieved despite the continual* rise in the value of the D-mark. Outstanding technological developments have helped advance West Germany's penetration of world markets in recent years and so far the industry has not had to go too far away from *home in search of export business*, with Europe and Comecon countries taking the bulk of its overseas sales.

Another major machine tool producing nation which has been having substantial success in selling its products to the U.K. *is Italy, which still ranks* in the top league of machine tool producers. Exports of equipment from Italy have risen to account for nearly half of all production, with West Germany itself a traditionally large customer, although it has recently become less important, with countries like the U.K., France and the Scandinavian nations taking up the slack. Home demand in Italy, however, *is certainly no more en*couraging than in any other producing country.

While individual nations vie for the business available among the world's major customers, they can at least be comforted by the multiplicity of *predictions which suggest that* international trade should once again be picking up towards the middle of next year. It can at least be said in the U.K.'s favour that the continuing rationalisation which has been underway among British machine tool manufacturers has *left them in better shape than* ever before to survive the present difficult conditions and will, hopefully, provide them with a sound *footing* on which to try to capitalise on the next upturn in international machine tool business.

Competition for sales in established and developing nations will be intense and up-to-date technology, good delivery performance, competitive prices and aggressive salesmanship will be needed if the U.K. is to maintain its standing in the international machine tool world.

Michael Cassell

Exhibition

CONTINUED FROM PREVIOUS PAGE

occasioned the organisers of 1 EMO some disappointment.

"This is the only showplace this year for European machine tool manufacturers and we would have thought that the U.K., which is an important manufacturing country, could have taken more space," M. Pierre Rouchard, commissioner general of 1 EMO, commented recently.

The reasons for the U.K. companies' relative caution are understandable. For the British industry has been seeing its order books fall fast. The most recent figures, put out by the Department of Industry at the end of last month, show that the three months to the end of February saw a 21 per cent. drop in the new order intake—most of it accounted for by a 35 per cent. decline in home orders—compared with the previous three months. And these are value figures, with price inflation masking an even heavier drop in real, volume terms.

The downturn began last October, and it has already resulted in the recent warning from Mr. George Trowbridge, president of the Machine Tool Trades Association, that the industry is running out of work and could by this October be *thinking carefully* about the level of employment it can maintain.

Clearly, in these circumstances, cash is tight and frills have to be cut out. Among those, obviously, could be considered participation in trade exhibi*tions. This is*, of course, a point that could be made too much of: the U.K. strength at 1 EMO will still be significant, with some impressive machines being shown for the first time including an eight-station numerically controlled turret drilling and milling machine built by the *Leicester* company Wadkin.

Overall, the importance of 1 EMO as a shop window for the machine tool industry throughout the world can be in no doubt. And how important that is is obvious. For machine tools are the basic stuff from which so much of industry's productive capacity stems. To-day, when inflation and recession are hitting most parts of the developed world and making it look *impossible for* the undeveloped world ever to achieve so many of the things taken for granted in the West, *modern manufacturing* equipment—and that to a considerable extent means modern and technologically advanced machine tools—have a major role to play in getting us out of the mess we are now in.

The organisers of the exhibition may have been pitching their sales talk a little high when they described the contacts and exchanges of knowledge made possible by it as being *likely "finally (to) affect* the progress of our standard of living," but the exaggeration is probably nowhere near as great as might appear on a first reading.

David Walker

Big groups play a dominant role

THE BRITISH machine tool industry is made up of about 180 companies ranging from the very large—employing more than 6,000—to the extremely small—less than 50 on the payroll. About 60 of the individual companies are owned by the larger machine tool or other diversified engineering groups. To get an idea of the way the larger companies dominate, you have only to know that the seven largest machine tool units account for 60 per cent. of total U.K. production, worth in the region of £250m. a year.

The seven "majors" include, in strictly alphabetical order:

(1) John Brown which through Wickman and its subsidiaries has machine tool manufacturing turnover of £41m. and profits before tax of £2.5m.

(2) Cincinnati Milacron, turnover around £20m. and with over 2,500 employees. This is a private company owned by the giant U.S. machine tool group of the same name.

(3) The George Cohen 600 Group, which has now begun to tell the world it is the U.K.'s largest maker of machine tools and which numbers among its 18 subsidiaries such well-known names as Colchester Lathe, W. E. Sykes, F. J. Edwards, Hydro Machine Tools, Gamet Products, Richmond Machine Tool and Dicksons (Engineering). Last year the 600 Group's machine tool division made profits of £3.7m. on a turnover of £36.7m.

(4) B. Elliott, which takes in Butler Machine Tool and Snow and Company as well as Elliott Machine Tools. Elliott's has diversified into other activities while cutting back on its machine tool operations for which it gives no separate statistics. The Elliott group as a whole last year had a turnover of £36.2m. and profits of £2.4m.

(5) Alfred Herbert, for some years the ailing giant of the industry and its biggest business in terms of turnover and numbers employed, some 6,500 at the moment. Herbert's turnover last year was £39m.

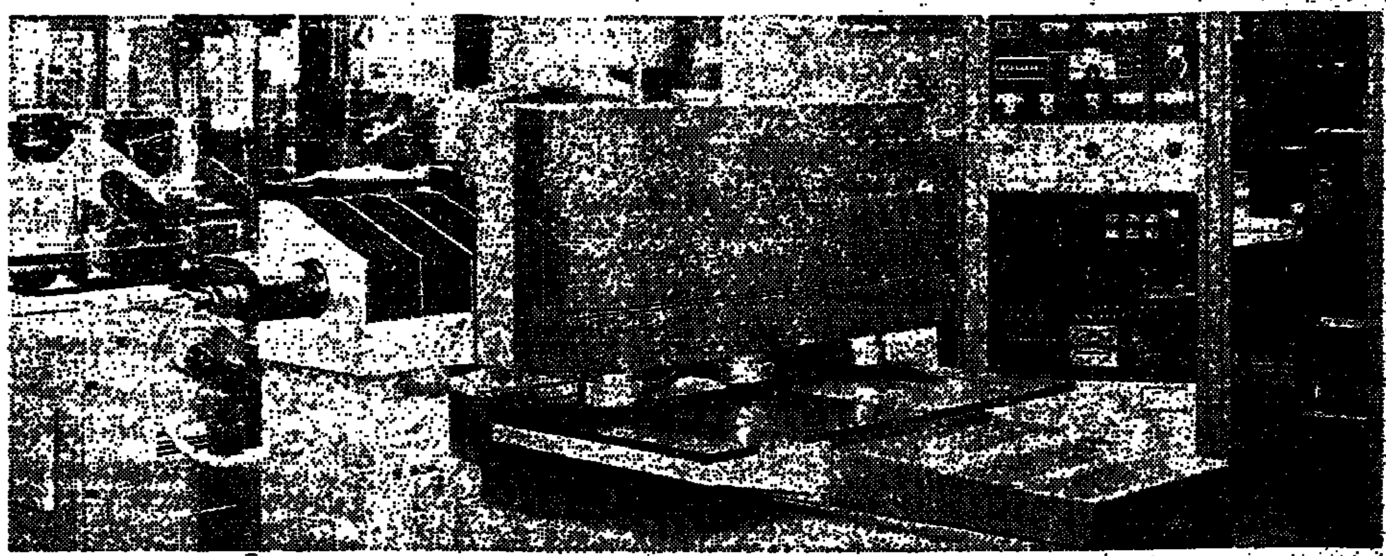
(6) Staveley Industries, which has also been actively slimming down machine tool operations. Its manufacturing companies are Asquith, Drummond, Kearns-Richard and Staveley-Lapointe. The company is reluctant to say exactly how much of last time's £57.4m. of turnover and £2.9m. profit was from machine tool operations. Chief executive Dr. Adolf Frankel maintains, however, that the division now described as the "machine tool" division should more realistically be called the "mechanical engineering" division.

(7) Tube Investments' "machine division" which the company itself maintains is "one of the largest machine tool, machinery and asociated equipment organisations in Europe." Among its best-known manufacturing businesses are Matrix and Charles Churchill.

TI's machine division made profits of £1.56m. on sales of £35.5m. last financial year.

Among the successful medium-sized concerns is Hartle Machinery International, previously called Edward G. Herbert, but which changed its name for obvious reasons. Hartle has grown considerably in recent years via acquisitions and its machine tool manufacturing "names" include Ackworthie, Alexander Machinery (Dudley), Broadbent, Qualters and Smith Bros., and Stanley Machine Tool. Its distribution division, headed by Hartle-Stedall, claims to be "one of the largest and most efficient machine distribution businesses in the U.K." Hartle's turnover in 1974 was £8m. and profits reached £407,000.

This makes it slightly smaller than Wadkin, best-known for its woodworking machinery. Wadkin's turnover last year was £13.6m. while profits reached £1.6m. Another publicly-quoted company in the sector, A. A. Jones and Shipman, made taxable profits of just over £1m. on £8m. of turnover.



The Plessey Numerical Controls' NC 1130 system, which has been integrated with the Europa R-3-1000 printed circuit board routing machine of Vero NC Developments.

Unquoted

Of the unquoted concerns, Adcock-Shipley, now part of the U.S. industrial conglomerate Textron, reported profits of £635,000 on 1973 sales of £6.34m. and there is every reason to suppose results have improved since then.

Most of the majors were built up during the mid-1960s. This period saw the growth of Alfred Herbert, Tube Investments, B. Elliott and Staveley machine tool operations. The IRC had a hand in the get-together of two smaller companies at the high technology end of the industry—Kearney and Trecker and the machine tool part of Marwin. These merged to become Kearney and Trecker Marwin.

The problem was that these merger programmes took place just in time for the worst recession that the U.K. machine tool industry has ever seen and they proved disastrous for many of the companies involved.

Alfred Herbert's position is well-known. Losses total more than £14m. over the past four years and so far there is no sign of a return to profitability. The company badly needs the financial assistance it is to receive from the Government. In return the State is expected to take a majority shareholding.

Herbert will join Kearney and Trecker Marwin to form the machine tool part of the National Enterprise Board's portfolio. For KTM, like Herbert burdened down with a huge load of debt that it found impossible to finance from profits and having no cash left for capital investment, also had to turn to the Government for financial aid.

Option

KTM has good products and a good order book, but poor financial results. The Government agreed to pump in up to £3.5m. in return for what amounted to control. What was unusual about this deal was that the Vickers group was called in to take management responsibility for KTM and has an option to acquire a controlling interest in the company by not later than April next year. Vickers sees this as a fairly inexpensive way of taking a look at machine tools—a business closely allied to some of its existing engineering operations.

Apart from Herbert and KTM, Staveley also almost bled to death because of the poor showing of its machine tool businesses. During the build-up days it took an interest in a wide variety of machine tool sectors. As part of his rescue scheme, Dr. Frankel, called in in 1970 to sort out the desperate situation, concentrated on companies concerned with the heavy end of the market. Once there were 5,000 working in Staveley's machine tool division and now there are 2,500. And as previously stated, quite a number of the division's activities now have nothing to do with machine tool manufacture.

Not only that, Dr. Frankel has made sure that the other parts of Staveley have been developed so that currently the £10m. of capital employed in the machine tool division is only one-quarter of total capital employed by the group.

The story at B. Elliott is very similar, although Elliott did not reach such dire straits as did Staveley. Elliott's acquisitions in the 1960s turned it into the leading supplier of standard machine tools in the U.K. with an integrated structure ranging from the manufacture of components to the production of finished machine tools and then on to selling and factoring.

The depression in the industry in the late 1960s and early 1970s convinced the management that a change of direction was neded, particularly as the developing countries could be expected to start producing standard machine tools with cheaper labour. The substantial rationalisation saw the number of factory locations in the U.K. halved and the workforce reduced by 45 per cent. Like Staveley, Elliott moved into heavy, more sophisticated machine tools.

Diversification took place and to-day only 20 per cent. of Elliott's total sales is from British-made machine tools. The rest of the business is made up of foundry operations, sales of imported machines, general engineering and overseas subsidiaries which bring in one-fifth of the profits.

Critics of the mergers that took place during the 1960s pointed to the fact that it is mainly the smaller machine tool concerns which have best weathered the years of intense depression in the industry. The smaller concerns, it was argued, were more successful because they usually had a product which had a technological lead over all competition or was a company which could supply the whole of Western European demand for one particular type of machine tool.

The smaller company was also more flexible, so the argument continued. It was able to change direction more quickly, to adapt its product to suit the customers' requirements. The management was more likely to devote its time to getting closer to the customer and the products the customer wanted rather than having to ... much of its time with administration problems.

What all this assumed, however, was that the new groups would be run from the centre. Where this centralised control did come into effect the results were, indeed, ... poor.

But some parts of the industry had led the way with a ... centralised structure. The 600 Group had one where the identities of the individual machine tool companies are retained, where they were encouraged to act as ... autonomous units. At TI, Staveley and Elliott this is now the pattern.

Security

At the same time, the individual companies have the broader financial and marketing base to work from because they are part of a group. They are certainly more able to find the resources of money and manpower needed to develop new overseas markets. Also, given the industry's difficult "image" problem, the association with a large and well-known group gives the potential customer a feeling of security.

In spite of all this, though, it will take a great deal more to persuade most of the "independents" in the industry that they should join a larger group. In any case, apart from Hartle, the large companies seem to be showing no real inclination to add to their existing machine tool interests apart from perhaps adding to their agency businesses.

Once the Alfred Herbert situation is sorted out, once Vickers has made up its mind about KTM, the industry structure should stabilise for some years to come. And, with luck, there will be no severe casualties from the current recession in the industry.

Kenneth Gooding

Two-way missions to foster exports

RECENTLY 20 Argentinian industrialists were in the U.K. for a two-week tour of some part of Britain's machine tool industry. At the end of the visit, one of the Argentinians recalled that he had recently been in the market for a particular machine tool. He had the choice of three from manufacturers around the world. He did not chose the British machine on offer because he knew very little about the company which made it. During the visit, however, he had had the chance to visit that particular company's main factory and see the kind of machine tools it was making. "I wish," said the Argentinian, "I had bought British now that I have seen what that company is doing."

The Argentinians were on an "inward mission" to the U.K. organised by the Machine Tool Trades Association with the backing of the British Overseas Trade Board—part of the Department of Industry.

This particular visit had not been in the 1975 schedule. But the MTTA's export officer, Mr. David Bromige, had discovered that not only was there soon to be an upsurge in demand in Argentina for machine tools but also there was widespread interest in a visit to the U.K. manufacturers. He made his discovery when calling in on contacts in Argentina on the way back from Brazil where he had been for the MTTA. As it turned out the party was split equally between representatives from the State-owned part of Argentinian industry and the private sector.

It was the first effort made by the MTTA in Argentina and, with some of the mission members already having re-tooling plans, the chances of a successful outcome in terms of firm orders are high.

This was just one of a number of "inward missions" over the past year. Other visitors came from Spain and France. The number of French missions during the past few years should augur well for follow-up action during the 1 EMO exhibition in Paris.

For follow-up action after any kind of mission is particularly important. The idea behind the "inward missions" is that personal contacts can be made and the visitors can see just how wide a selection of machine tools is available in the U.K. and just how advanced on the technological front they are.

The pattern of the inward missions is that they are sponsored by the MTTA with financial support from the British Overseas Trade Board. Companies interested in the particular countries the visitors come from can arrange to have them visit one of their manufacturing units. The cost of entertaining the party for a day usually works out at between £300 and £400 for the company concerned—cheap at the price when you consider that the company gets 20 high-powered machine-tool customers as a captive audience for a whole day. As these missions have been part of the MTTA's efforts for some years now, the association has learned a great deal about the way companies can best present what they have on offer.

Cheaper

Complementing the "inward missions" are "outward missions" which the MTTA and the British Overseas Trade Board organise from time to time. The idea here is that, by making up a group, travel and hotel facilities can be bought at a cheaper rate and the BOTB can become officially involved via financial help for those companies taking part. Once company representatives arrive at the destination it is up to them to go out and sell, perhaps visiting existing agents or looking for one to serve that particular area.

During the past year there has been a small outward mission to South Korea, a third-world market of considerable promise—particularly in the form of the new Hyundai plant producing the first all-Korean car. The MTTA says "The mission was certainly successful, reflecting the special importance the South Koreans had placed upon it."

There has also been a mission to Czechoslovakia at the invitation of the State purchasing agency. "This arose out of mutual wishes to improve the two-way trade of the countries, and the Czech concern for our knowledge of their market for machine tools. The result was an offer of space at the Brno Technical Fair in September this year, which was quickly accepted," says the MTTA. "Indications are that some inroads will be made in this market."

The MTTA sees as one of its main tasks the identification of future major markets. In the past the "nursing" of the Spanish machine tool market certainly paid off with exports nearly doubling in value to £3.7m. in the two years between 1971 and 1973.

Possible markets looked at last year included Indonesia and Brazil. The MTTA's director general Mr. Howard Barrett took a detour to Indonesia on his way home from the Japanese International Machine Tool Fair last October. He reported that the Indonesia market was not technologically ready for an inward mission just yet, although a close watch should be kept on developments.

Mr. Barrett, with the recently-retired MTTA president Mr. Tony Galliers-Pratt, spent some days in Iran last October as well. Iran is proving to be one of the most interesting markets of late and the trip by the MTTA representatives "is leading to further collective and individual company visits."

Mr. David Bromige combined a trip to the British Industrial Exhibition in Sao Paulo—where machine tool makers took 37 per cent. of the U.K. space—with research for report he issued when he got home. The message in the report (which was mainly concerned with providing as much information as possible about industrial conditions in Brazil) was that U.K. manufacturers contemplating the setting-up of joint ventures in Brazil or considering having their equipment made there under licence should move quickly. For German and Japanese companies are already making progress there and in some areas "their success will mean the market will be virtually closed to the competition because once manufacture in Brazil is established tariff barriers come into effect to keep down imports of similar machines."

The MTTA also helps members taking part in various exhibitions round the world, often only with advice but sometimes taking a sponsoring role (along with the BOTB) for the British party. During the past 12 months there has been the British Machine Tool exhibition in Stuttgart, an event where the immediate return was disappointing because of the economic climate in Germany but one which underlined the advantages of the specialised British machine tool events and the MTTA's belief that similar events should be held in other markets.

Successful

Apart from the San Paulo event, there was the National Machine Tool Builders show in Chicago, one of the major events of 1974, and which had a reasonable representation from the U.K. industry. Says the MTTA: "It was a successful show in a market which proved to be by far the best for U.K. manufacturers in 1974, taking £13.9m.-worth of machine tools."

The British Machine Tools and Scientific Instrument exhibition in Shanghai, China, formed the basis of a follow-up to an Industrial Technology exhibition in 1973. "The going was slow in the short term due to the Chinese lack of funds, attributable to their very major investments in 1973 and 1974. However, interest was high and the future promises to be rewarding for those who make the effort," the MTTA declared.

Results from the Japanese International Machine Tool Fair in Osaka were also negative in view of the sadly depressed state of the economy there. But that event did provide a chance for the representatives of the MTTA and their counterparts in the Japanese industry to compare notes. They both agreed that the number of exhibitions around the world is in dire need of rationalisation.

Mr. Galliers-Pratt reports, however: "I am sorry that subsequent discussions with the U.S. and even in Europe have revealed attitudes which for the time being at least seem to indicate that, although the machine tool industries of the world complain about the frequency and cost of major 'compulsory' exhibitions, we have not yet reached a stage of willingness to seek to overcome the problem—perhaps for chauvinistic reasons."

The current year's activity has begun with emphasis on Eastern Europe, with lecture missions to Poland and Rumania. Following the director general's report on Iran, recommending a high-level selling mission to that market, one will be led there by Mr. George Trowbridge, new president of the MTTA, next month. In September there is the Brno Technical Fair. A small mission will visit East Germany in the near future to discuss that country's machine tool requirements under the Anglo-GDR ten-year plan. The East German market has been closed to British manufacturers of machine tools so far but the first hope is that the GDR might take £10m. or so of machine tools a year during the five-year plan which began this year.

Further plans include an outward mission to Hungary in September and an exhibition in South Africa in October. The provisional 1976 programme includes participation in the Leipzig Fair and a possible British Machine Tool exhibition in Bilbao, Spain.

In making its plans, the MTTA says that, while the priority markets are vital to the schedule, the programme should not be overburdened. There should be flexibility to cope with sudden developments in other markets—such as happened in Iran and Eastern Europe.

Kenneth Gooding

AUTHORISED UNIT TRUSTS

Reliance Hse., Tunbridge Wells, Kt. 0892 22271

BL British Life	38.7	40.3	+0.8	5.40
BL Balanced*	29.9	30.7	.....	4.87
BL Capital*	31.9	33.8	.....	5.23
BL Dividend*	27.3	28.9	.....	9.60

*Prices on June 11. Next dealing June 18

Gartmore Fund Managers♥

2, St. Mary Axe, EC3A 8BP. 01-283 3531

British Trust	32.8	35.3	+0.5	4.49
High Income Tst.	28.9	31.1	−0.4	11.63
(Z)Overseas Tst.	25.8	27.7	.....	1.50

INSURANCE, PROPERTY, BONDS

REGIONAL MARKETS

Following the merger last year of U.K. stock exchanges, a selection of the share prices previously shown under regional headings is presented below with quotations on London. Irish issues, most of which are not officially listed in London, are shown separately and with prices as on the Irish exchange.

Albany Inv. 20p	12	.....	Gardner (L.)	60	−2	Shiloh Spinn.	23	.....
Ash Spinning	34	.....	Grmg Ship. £1	470	.....	Sindall (Wm.)	43	.....
Bertam	18	.....	Hallam Sleigh 10p	9	.....	Vincent (H.)	83	−2
Brady (G.) 'A'	51	.....	Higsons Brew	88	.....	**IRISH**		
Bdg'wtr Est. 50p	£135	.....	I.O.M. Stm. £1	130	.....			
Clover Croft	35	.....	Holt (Jos.) 25p	185	.....	Alliance Gas (£1)	55	.....
Craig & Rose £1	312	.....	Kleen-e-Ze	30	.....	Carroll (P. J.)	112	.....
Dundee Ice £1	295	.....	Lovell's Ship £1	130	.....	Clondalkin	59	.....
Dyson (R.A.)	30	−5	N'thn. Goldsmith	65	.....	Concrete Prods.	72	.....
Ellis & McHdy.	57	.....	P.M.A.	38	.....	Goodbody (£1)	38	.....
Evans Fr'k. 10p	30	.....	Pearce (C. H.)	60	.....	Heiton (Hldgs.)	59	.....
Evered	13	.....	Peel Mills	18	.....	Irish Distillers	56	−3
Fife Forge	48	.....	Richards 10p	7½	.....	Irish Wire	40	.....
Finlay Pkg. 5p	16	.....	RobbCaledon 5p	50	.....	Jacob	52	−3
Frost & Reed 50p	88xd	.....	Sayers 12½p	9p	.....	Sunbeam	13	.....
Gardiner & Sons	11	.....	Sheff. Refrshmt.	150	.....	Unidare	68	.....

FINANCIAL TIMES STOCK INDICES

—	June 13	June 12	June 11	June 10	June 9	June 6	A year ago
Government Secs.	58.22	57.56	57.60	58.33	58.35	58.72	57.07
Fixed Interest	57.43	57.22	58.01	58.17	58.14	58.51	56.89
Industrial Ordinary	340.6	334.7	334.2	339.8	352.3	362.0	273.5
Gold Mines	379.9	356.4	378.7	374.9	371.6	389.0	318.8
Ord. Div. Yld. %	5.83	5.92	5.94	5.83	5.64	5.49	7.29
Earnings Yld. % (full)	17.45	17.73	17.80	17.45	16.88	16.44	18.71
P/E Ratio (net)	8.18	8.05	8.02	8.18	8.46	8.68	7.56
Dealings marked	6,334	6,706	6,729	6,833	8,628	7,555	†5,248
Equity turnover £m.	—	77.73	68.26	74.37	65.09	107.41	35.71
Equity bargains total	—	18,460	18,283	19,136	20,757	25,503	9,996

10 a.m. 334.4. 11 a.m. 334.5. Noon 334.5. 1 p.m. 335.0. 2 p.m. 335.2. 3 p.m. 335.2.

Latest Index 01-246 8026. † Excluding regional exchanges.

(a) Based on 52 per cent. corporation tax. (b) Nil=5.13.

Basis 100 Govt. Secs. 15/10/26. Fixed Int. 1928. Ind. Ord. 1/7/35. Gold Mines 12/9/55. S.E. Activity July-Dec. 1942.

HIGHS AND LOWS

—	1975 High	1975 Low	Since Compilation High	Since Compilation Low
Govt. Secs.	62.34 (20/3)	49.18 (3/1)	127.4 (9/1/35)	49.18 (3/1/75)
Fixed Int.	62.51 (21/3)	50.63 (3/1)	150.4 (28/11/47)	50.53 (3/1/75)
Ind. Ord.	365.3 (5/6)	146.0 (6/1)	543.6 (19/6/72)	49.4 (26/6/40)
Gold Mines	442.3 (22/6)	200.2 (20/1)	442.3 (22/6/75)	43.5 (26/10/71)

S.E. ACTIVITY

—	June 13	June 12
Daily—		
Gilt-Edged	152.6	153.9
Industrials	217.3	229.3
Speculative	48.1	59.2
Totals	144.2	152.6
5-day Av'r'ge		
Gilt-Edged	141.8	142.9
Industrials	244.0	251.6
Speculative	60.1	65.0
Totals	160.4	165.9

FT—ACTUARIES INDICES

—	June 13	June 12	June 11	June 10	June 9	June 6	A year ago
Industrial Group	134.02	131.84	133.71	135.88	138.96	143.43	108.88
500 Shares	146.56	144.32	145.76	148.08	151.69	156.14	116.91
Div. Yield pc	5.98	6.07	6.01	5.92	5.77	5.60	6.98
P/E Ratio (net)	7.21	7.09	7.17	—	7.47	7.69	7.01
All Share	145.10	143.21	144.10	146.42	149.77	154.09	113.85
Consols yield pc	14.68	14.90	14.89	14.67	14.66	14.54	14.91

BASE LENDING RATES

AFI International	9½%	Industrial Bank of Scot.	9½%
Allied Irish Banks Ltd.	9½%	Jacobs, Kroll	11½%
Anglo-Portuguese Bank	10 %	Keyser Ullmann	10½%
Henry Ansbacher	10½%	Kinghurst Securities	12 %
Banco de Bilbao	9½%	Lloyds Bank	9½%
Banco de Jerez	10½%	London & European	11½%
Bank of Cyprus	†10 %	London Mercantile	11½%
Banque du Rhone S.A.	10 %	Midland Bank	9½%
Barclays Bank	9½%	■ Samuel Montagu	9½%
Barnett, Christie Ltd.	11 %	■ Morgan Grenfell	9½%
Bremar Holdings Ltd.	10½%	Morris Wigram Ltd.	10½%
Brit. Bank of Mid. East	9½%	National Westminster	9½%
■ Brown Shipley	10½%	Northern Comm. Trust	11½%
Cayzer, Bowater Co. Ltd.	10½%	Norwich General Trust	10 %
Cedar Holdings	11 %	Portman Guaranty	11 %
■ Charterhouse Japhet	10½%	P. S. Refson & Co.	9½%
C. E. Coates	10½%	Rossminster Accept'cs	9½%
Consolidated Credits	12 %	Royal Trust of Canada	10½%
Continental Trade Bk.	9½%	E. S. Schwab	11½%
Co-operative Bank	* 9½%	Security Trust Co. Ltd.	11 %
Copleys Bank	11½%	Shenley Trust	11½%
Corinthian Securities	9½%	Standard & Chartered	9½%
Credit Lyonnais	9½%	Sterling Credit	12 %
G. R. Dawes	10½%	Stewart Salmon & Co.	9½%
Duboff Brothers	11½%	Thames Guaranty	12 %
Duncan Lawrie	10½%	Trade Development Bk.	9½%
English Transcont.	11½%	Twentieth Century Bk.	11½%
First London Secs.	9½%	United Bank of Kuwait	9½%
■ Antony Gibbs	10 %	Wallace Brothers Bank	10½%
Goode Durrant Trust	10 %	Whiteaway Laidlaw	10 %
Greyhound Guaranty	9½%	Williams and Glyn's	9½%
Grindlays Bank	10 %	Yorkshire Bank	9½%
■ Guinness Mahon	10½%		
■ Hambros Bank	9½%		
Hawtin & Partners	13 %		
■ Hill Samuel	§10 %		
C. Hoare & Co.	† 9½%		
Julian S. Hodge	10½%		

■ Members of the Accepting Houses Committee.

* 7-day deposits 6½%, 1-month deposit 6½%.

† 7-day deposits on sums of £10,000 and under 6½%, up to £25,000 6½% and over £25,000 7½%.

‡ Deposit Base Rate 6½%.

§ Demand deposit 7½%.

I.G. INDEX
GOLD 163½-166½

CORAL INDEX
Close 338-343

OFFSHORE AND OVERSEAS FUNDS

S. G. Warburg & Co. Ltd.

30, Gresham Street, EC2. 01-600 4555

CMT Ltd. May 29	£10.08	10.86	.....	—
Cv. Bd. June 12	US$8.12		−0.2	—
Enrg. Int. June 12	US$12.99		−0.02	—
Grsh. St. $Fd. May 30	$US7.36		.....	—
TMT Ltd. May 8	£11.67	11.97	.....	—

World Wide Growth Management♦

10a, Boulevard Royal, Luxembourg.

World Wide Gth. Fd.	US$12.96	−0.10	—

NOTES

Prices do not include $ premium, where applicable, and are in pence unless otherwise indicated. Yields allow for all buying expenses. a Offered prices include all expenses. b Today's prices. c Yield based on offer price. d Estimated. z Distribution free of U.K. tax. x Offered price includes all expenses except agent's commission. y Offered price includes all expenses if bought through managers. z Previous day's price. ♥ Net of tax on realised capital gains unless indicated by ♦. ¶ Guernsey yield. ƒ Suspended. ‡ Single premium insurance bonds.

FT SHARE INFORMATION SERVICE

BRITISH FUNDS

"Shorts" (Lives up to Five Years)

Five to Fifteen Years

Over Fifteen Years

Undated

INTERNATIONAL BANK

CORPORATION LOANS

COMMONWEALTH & AFRICAN LOANS

LOANS (Miscel.)

FOREIGN BONDS & RAILS

AMERICANS

S.E. List Premium 67½% (based on $2.2797 per £)

CANADIANS

S.E. List Premium 67½% (based on $2.2862 per £)

Conversion factor 0.5078 (0.5851)

BANKS AND HIRE PURCHASE

Dividends Paid	Stock	Price	Last xd	Div Net	Cvr	Y'ld Grs	P/E
Feb. Aug.	[illegible] Sec 10p	12	[illegible]	13.4	2.1	15.9	4.2
Aug. Mar.	Alexanders D. £1	195	[illegible]	10.9	—	8.6	—
—	Algemene Fl. 100	£100	[illegible]	Q%20	1.8	3.4	21.7
Oct. June	Allen Harvey £1	290	[illegible]	13½	—	7.2	—
Dec. June	Allied Irish	112	[illegible]	Q25	—	5.6	—
April	Anglo Cont'l	52	[illegible]	—	—	—	—
Jan. July	Arbuthnot L. £1	165	[illegible]	7.6	—	7.3	—
July Jan.	Aust. & N.Z. $1	352d	[illegible]	+9.1	—	3.6	—
[illegible]	BankAmer $3.125	£31⅛	[illegible]	Q$1.48	—	2.0	—
April	Bk. Hapoalim I£1	30	[illegible]	Q+h9.4	—	[illegible]	—
July Jan.	Bk. Ireland £1	440	[illegible]	Q24	—	5.5	—
Sept. April	Bk. Leumi A/£1	22	[illegible]	Q16	—	5.3	—
Aug. Feb.	Bk. Leumi (U.K.) £1	220	[illegible]	7¼	—	[illegible]	—
June Dec.	Bk. N.S.W. $A2	620d	[illegible]	Q28c	—	2.6	—
Oct. May	Bank Scotland £1	263	[illegible]	8.3	♦	4.9	♦
[illegible]	Bankers N.Y. $10	£25¾	[illegible]	Q$3.00	—	4.0	—
Aug. Apr.	Barclays £1	310	[illegible]	8.3	4.7	4.1	7.5
Dec. July	Bates (Edward)	60	[illegible]	‡29	2.1	[illegible]	5.6
Jan. June	Bering (C. T.)	63	[illegible]	8.4	1.2	5.2	24.3
Dec. Apr.	Brown Shipley £1	175xd	[illegible]	6.9	—	6.1	—
Jan. June	Brunston	7	[illegible]	♦td4.4	—	[illegible]	—
July Feb.	Burston Group	18s	[illegible]	+13.2	2.4	28.5	2.2
Jan. July	Cater Ryder £1	215	[illegible]	14.4	—	10.[illegible]	—
Mar. Oct.	Cedar Hldgs. 20p	13s	[illegible]	[illegible]	2.5	[illegible]	6.1
Feb. Sept.	Coml. Aus. ($A1)	250d	[illegible]	[illegible]	—	3.2	—
May	Com'zbk DM100	£12½	[illegible]	Q17	—	[illegible]	—
March	C'nhgn Hdk.Kr100	£23½	[illegible]	Q11	—	5.6	—
Jan. May	Corinthian 10p	11	[illegible]	—	—	—	—
June	Cred. France F75	£26¼	—	Q9.7	—	2.4	—
May	Dawes (G.R.)	133s	[illegible]	32.1	2.9	6.1	8.6

Hire Purchase, etc.

BEERS, WINES AND SPIRITS

BUILDING INDUSTRY, TIMBER & ROADS

BUILDING INDUSTRY—Continued

CHEMICALS, PLASTICS

CINEMAS, THEATRES AND TV

DRAPERY AND STORES

DRAPERY AND STORES—Continued

ELECTRICAL AND RADIO

ENGINEERING, MACHINE TOOLS

ENGINEERING—Cont.

FOOD, GROCERIES, ETC.

HOTELS & CATERERS

HOTELS—Continued

INDUSTRIALS (Miscel.)

INDUSTRIALS—Continued

[illegible]

INDUSTRIALS—Continued

[illegible]

INSURANCE

[illegible]

MOTORS, AIRCRAFT TRADES

Motors and Cycles

[illegible]

Commercial Vehicles

[illegible]

Components

[illegible]

Garages and Distributors

[illegible]

NEWSPAPERS, PUBLISHERS

[illegible]

PAPER, PRINTING, ADVERTISING

[illegible]

PROPERTY

[illegible]

PROPERTY—Continued

[illegible]

SHIPBUILDERS, REPAIRERS

[illegible]

SHIPPING

[illegible]

SHOES AND LEATHER

[illegible]

SOUTH AFRICANS

[illegible]

TEXTILES

[illegible]

TOBACCOS

[illegible]

TRUSTS, FINANCE, LAND

Investment Trusts

[illegible]

TRUSTS—Continued

[illegible]

Finance, Land, etc.

[illegible]

OILS

[illegible]

OVERSEAS TRADERS

[illegible]

RUBBERS AND SISALS

[illegible]

TEAS

India and Bangladesh

[illegible]

Sri Lanka

[illegible]

Africa

[illegible]

TRUSTS—Continued

[illegible]

MINES

CENTRAL RAND

[illegible]

EASTERN RAND

[illegible]

FAR WEST RAND

[illegible]

O.F.S.

[illegible]

FINANCE

[illegible]

DIAMOND AND PLATINUM

[illegible]

CENTRAL AFRICAN

[illegible]

AUSTRALIAN

[illegible]

TINS

[illegible]

Dividends Paid		Stock	Price	Last xd	Div Net	Cvr	Y'ld Gr's
July	Dec.	Killinghall	165	7.4	48	—	11.2
Apr.	Dec.	London Tin 10p	277	24.2	35	ϕ	6.1
Jan.	June	Malay Dredging	190	5.5	‡43.9	1.6	8.9
June	Dec.	¶Pahang	41	21.4	[illegible]	1.5	7.9
July	Jan.	Pengkalen 10p	59	21.4	70	1.0	18.3
March		Petaling $M1	95	27.1	—	—	—
Jan.	July	Saint Piran	17	19.5	‡5.3	1.3	‡
Apr.	Nov.	South Kinta (10p)	130	27.1	†82.5	0.9	9.8
June	Dec.	Sthn. Malayan	150	5.5	g43.9	1.4	11.3
July	Dec.	Sungei Besi 10p	71xd	2.6	30	ϕ	13.0
Mar.	Oct.	Sungei Way $M1	42	2.9	ZQ10	—	4.2
Sept.	July	Tanjong 15p	68	27.1	29	ϕ	9.8
Jy Mar	Sep	Tongkah Hb $M1	58	31.1	‡Q30	1.3	‡
Apr.	Oct.	Tronoh	79	10.3	16.1	3.5	7.8

COPPER

Dividends Paid		Stock	Price	Last xd	Div Net	Cvr	Y'ld Gr's
—		Botswana RST P2	72	—	—	—	—
June	Dec.	Messina R0.50	335xd	2.6	‡Q60c	2.9	‡

MISCELLANEOUS

Dividends Paid		Stock	Price	Last xd	Div Net	Cvr	Y'ld Gr's
—		Burma Mine 17½p	8	19.5	m0.5	—	1.7
—		Charterhall 5p	54	3.6.7	—	—	—
—		Colby Mines $1	75#	—	—	—	—
Aug.	Feb.	Cons. Murch. 10c	660	24.12	†Q130c	2.2	‡
—	—	Laurasia	36	—	—	—	—
—		NRD $1	15	—	—	—	—
July		Northgate C$1	290	30.9	Q65c	1.0	10.0
Jan.	June	R.T.Z.	166	21.4	19.9	4.4	4.1
—		Sabina Inds. C$1	95	—	—	—	—
—		Stanford Mines ‖	67	—	—	—	—
—		Tara Expln. $1	£10⅞	—	—	—	—
—	—	Yukon Cons C$1	60	11.65	—	—	—

NOTES

Unless otherwise indicated, prices are in pence, denominations are 25p and dividends are in net percentage terms. Estimated price/earnings ratios and covers are based on latest annual reports and accounts and, where possible, are updated on half-yearly figures; they are adjusted to corporation tax of 52 per cent. and ACT of 35 per cent. P/Es are calculated on the basis of net distribution; bracketed figures indicate 10 per cent. or more difference if calculated on "nil" distribution. Covers are based on "maximum" distribution. Yields, assuming maintenance of net dividends on current rate of ACT, are based on middle prices, are gross and allow for value of declared distributions and rights. Securities with denominations other than sterling are quoted *inclusive of the investment dollar premium.*

- △ Sterling denominated securities which include investment dollar premium.
- ● "Tap" Stock.
- * Highs and Lows marked thus have been adjusted to allow for rights issues for cash.
- † Interim since increased or resumed.
- ‡ Interim since reduced, passed or deferred.
- ‡‡ Tax-free to non-residents.
- ϕ Figures or report awaited.
- †† Banks and Insurance: reserve allocations may preclude calculation of dividend cover.
- # Price at time of suspension.
- ¶ Indicated dividend after pending scrip and/or rights issue: cover relates to previous dividend or forecast.
- ** *Free of Stamp Duty.*
- ◆ Merger bid or reorganisation in progress.
- ♣ Not comparable.
- ◆ *Same interim: reduced final and/or reduced earnings* indicated.
- $ Based on 1973 profits.
- † *Cover allows for conversion of shares not now ranking for* dividends or ranking only for restricted dividend.
- ★ Cover does not allow for shares which may also rank for dividend at a future date. No P/E ratio usually provided.
- ♥ Excluding a final dividend declaration.
- ♣ Regional price.
- ‖ No par value.

a Tax free. b Figures based on prospectus or other official estimate. c Cents. d Dividend rate paid or payable on part of capital; cover based on dividend on full capital. e Redemption yield. f Flat yield. g Assumed dividend and yield. h Assumed dividend and yield after scrip issue. j Payment from capital sources. k Kenya. m Interim higher than previous total. n Rights issue pending. q Earnings based on preliminary figures. r Australian currency. s Dividend and yield exclude a special payment. t Indicated dividend: cover relates to previous dividend. P/E ratio based on latest annual earnings. u Forecast dividend: cover based on previous year's earnings. v Tax free up to 30p in the £. w Yield allows for currency clause. y Dividend and yield based on merger terms. z Dividend and yield include a special payment. Cover does not apply to special payment. A Net dividend and yield. B Preference dividend passed or deferred. C Canadian. E Issue price. G Assumed dividend and yield after pending scrip and/or rights issue. M Figures based on prospectus or other official estimates for 1973-74. Q Gross. T Figures assumed. U No significant Corporation Tax payable. Z Dividend total to date.

Abbreviations: xd ex dividend; xc ex scrip issue; xr ex rights; xa ex all; xd ex capital distribution.

"Recent Issues" and "Rights" Page 25

FINANCIAL TIMES
Monday June 16 1975

Sterling warning to U.K. tourists

BY ROY HODSON

BRITISH TRAVELLERS abroad were warned by a spokesman for the Association of British Travel Agents yesterday that "a few" hotels, restaurants, and shops might be reluctant to accept sterling travellers' cheques and pounds. Adding that such a situation could arise in times of difficulty for sterling, the ABTA official advised people to check with their banks.

The week-end saw heavy cashing of travellers' cheques into foreign currency at Heathrow—banks there called it a "mad dash."

Holiday £

at Heathrow yesterday

MIDLAND BANK

	Selling price	Buying price
Austria	Sch.37.00	39.00
France	Frs.9.00	9.30
W. Germany	DM5.26	5.48
Greece	Dr.66.00	70.00
Italy	Lire1,395	1,440
Spain	Ptas.124.0	129.5
U.S.	$2.28	2.33

BARCLAYS
Same except for:

W. Germany	DM5.25	5.45
Greece	Dr.66.25	68.00
U.S.	$2.275	2.325

However, Barclays Bank International was advising people not to convert all their cheques into foreign currencies before going abroad. An official said "the pound steadied on Friday as a result of the good trade figures, and inquiries through our Continental branches suggest there will be no difficulties in cashing sterling cheques at European banks."

When a party organised by Swan Tours arrived at London Airport on Saturday night from Majorca they claimed they had been forced to pay a "currency" surcharge of £4 each at the end of their holiday before they were allowed to travel to the airport for the flight home.

The rush continued at Heathrow yesterday to exchange travellers' cheques for foreign currency. Banks reported that business had been brisk, even though the currency exchange notice boards at the banks at Heathrow had remained reasonably stable throughout the day.

Weather

U.K. TO-DAY

SHOWERS, bright or sunny intervals. Perhaps longer rain in E. at first. Cool in N. and E.

London, E. Midlands
Sunny intervals, scattered showers, some longer rain spells at first. Wind W., light. Max. 17C (63F).

E. Anglia, E. and N.E. England
Cloudy, rain spells at first, bright with showers later. Wind N.W., light. Max. 15C (59F).

S.E., Cent. S.W., N.W. and Cent. N. England, Midlands, Channel Is., Wales, Lakes, I. of Man
Sunny intervals, scattered showers. Wind N., light or moderate. Max. 17C (63F).

Borders, Edinburgh and Dundee, S.W. and N.W. Scotland, Glasgow, Cent. Highlands, Argyll, N. Ireland
Sunny intervals, scattered showers. Wind N., light or moderate. Max. 14C (57F).

Aberdeen, Moray Firth, N.E. Scotland
Bright intervals, showers. Wind N.E., light or moderate. Max. 12C (54F).

Orkney, Shetland
Bright intervals, showers. Wind N.E., moderate. Max. 10C (50F).

Outlook: Dry, sunny spells in most parts after some showers in S.E. Cloudy later, with drizzle in some W. areas. Becoming warmer.

Lighting-up: London 21.49, Manchester 22.10, Glasgow 22.34, Belfast 22.32.

BUSINESS CENTRES

		Y'day Mid-day °C	°F			Y'day Mid-day °C	°F
Alexandria	S	30	86	Luxembrg	R	17	63
Amstrdm	R	14	57	Madrid	F	24	75
Athens	S	26	79	Manchestr	C	13	55
Bahrain	S	34	93	Melbourne	C	13	55
Barcelona	F	23	73	Milan	F	29	84
Beirut	S	26	79	Montreal	R	24	75
Belfast	F	14	57	Moscow	F	16	61
Belgrade	S	28	82	Munich	F	25	77
Berlin	C	18	64	Newcastle	C	14	57
Birmghamm	C	14	57	New York	C	22	72
Bristol	C	15	59	Oslo	R	13	55
Brussels	R	19	66	Paris	C	20	68
Budapest	S	28	82	Perth	C	20	68
B. Aires	S	16	61	Prague	S	25	77
Cairo	S	36	96	Reykjavik	C	9	49
Cardiff	C	14	57	Rio de J'o	C	23	73
Cologne	C	22	72	Rome	S	22	72
Copnhagn	C	14	57	Singapore	R	28	82
Dublin	C	12	54	Stockholm	F	17	63
Edinburgh	F	16	61	Strasbourg	F	26	79
Frankfurt	R	25	77	Sydney	C	14	57
Geneva	C	23	73	Tel Aviv	C	29	84
Glasgow	R	11	52	Tokyo	C	21	69
Helsinki	T	13	55	Toronto	S	23	73
H. Kong	C	26	79	Vienna	S	28	82
Jo'burg	S	17	62	Warsaw	C	19	66
Lisbon	F	18	64	Zurich	C	19	66
London	C	17	63				

HOLIDAY RESORTS

		Y'day Mid-day °C	°F			Y'day Mid-day °C	°F
Ajaccio	C	21	70	Jersey	F	17	63
Algiers	R	21	70	Las Palmas	S	23	73
Biarritz	C	17	63	Locarno	F	22	72
Blackpool	F	14	57	Luxor	S	42	108
Bordeaux	C	19	66	Majorca	C	25	77
Boulogne	C	14	57	Malaga	C	25	77
Casablnca	C	23	73	Malta	S	27	81
Cape To	C	17	63	Nairobi	S	23	73
Corfu	S	26	79	Naples	S	25	77
Dubrovnik	S	25	77	Nice	S	20	68
Faro	S	21	70	Oporto	C	17	63
Florence	F	26	79	Rhodes	S	27	81
Funchal	F	21	70	Salzburg	F	28	82
Gibraltar	F	24	75	Tangier	C	20	68
Guernsey	C	14	57	Tunis	S	29	84
Innsbruck	C	25	77	Valencia	S	25	77
Inverness	R	10	50	Venice	S	25	77
Istanbul	F	24	75				

S—Sunny. C—Cloudy. F—Fair. R—Rainy. T—Thunderstorm. H—Hazy.

U.S. backs retaliation if oil price jumps

BY PAUL LEWIS, U.S. EDITOR — WASHINGTON, June 15.

THE U.S. Administration will propose that the Western industrial countries consider some form of retaliation against the OPEC cartel if it raises the price of oil by any significant amount later this year.

At the moment, Dr. Kissinger has not abandoned hope of preventing any big increase by diplomatic means—although it cannot be said that all his aides are equally optimistic. But should he fail, his present instinct is to suggest reprisals by the oil consuming nations against the oil exporters.

Weapon

There is already quite a debate going on within the Administration over what the West could hope to do in the event of another oil price rise. And two rather tentative conclusions have emerged—neither of them very encouraging.

The first is that the only economic weapon the Western industrial countries have against OPEC lies in their exports to the oil producing countries. They could try to restrict food exports, although this would primarily affect only Iran and Venezuela.

A more effective move might be to restrict or increase the price of other industrial exports towards the OPEC countries, perhaps through a special tax that would recoup the additional money paid for oil.

Dr. Kissinger . . . considering oil reprisals.

However, the second conclusion is that any programme of sanctions would have to be accepted by all Western countries if it was to be effective. At the moment, Dr. Kissinger doubts whether the Europeans would be prepared to embark on any kind of confrontation course with the oil producing nations.

This might change if OPEC proposed an increase of $2 or $3 a barrel, or if the Middle East situation produced another embargo. But as matters stand, Dr. Kissinger intends to suggest concerted political action of some kind against OPEC if it increases prices again this year, regardless of European feelings.

Tolerable

Whether the U.S. can stave off such a price rise by diplomatic means, remains a matter of dispute within the Administration. Dr. Kissinger appears to be pinning his hopes again on Saudi Arabia refusing to make the production cut-back necessary to sustain a higher price. But some officials fear a world economic upturn will strengthen OPEC's hand, while calculations suggest that Saudi Arabia could afford to reduce production well below its current level of about 5.8m. barrels a day, and perhaps go as low as 3m. to 4m. barrels daily.

There are also some signs of disagreement within the Administration over how much of a price increase would be considered tolerable in September. The White House spokesman suggested that a 7 to 8 per cent. rise might be reasonable to offset world inflation. But officially the U.S. remains committed only to accept the indexing of the oil price to, say, other world commodities in return for a substantial reduction of the present level of oil prices.

Bonn urged to act on '1m. unemployed' danger

BY NICHOLAS COLCHESTER — BONN, June 15.

ONCE AGAIN the West German Government is under mounting pressure to apply further stimulus to the economy. The head of the Federal Labour Office, Herr Josef Stingl, predicts that unemployment will average more than 1m., or 4.4 per cent., for the year as a whole. There have been calls at the week-end from sections of Government and Opposition parties for new measures to fight joblessness.

Herr Stingl said on Friday that average unemployment would lie above 1m. this year, even if the total fell below that mark in the summer. He said the recent reduction in the number of unemployed was basically a seasonal variation, and that the figures before him showed no signs of relief in the labour market in the foreseeable future.

In meetings at the week-end the social committee of the Opposition Christian Democratic party and the working group for employee questions of the Social Democrats both spoke out for a programme of public investment to create jobs.

The SPD working group also called for a greater degree of Government influence on capital investment of companies, arguing that this investment was too important to leave to company managements alone.

Herr Willy Brandt, the former Chancellor and chairman of the Social Democratics party, warned that the times of automatic growth in Germany were over. He cautioned his party against giving the impression that unemployment was something that could be got used to. Unemployment must remain the SPD's most serious challenge, he insisted.

So far Bonn has maintained that no further economic action is practicable, despite the fact that its own unemployment estimate averages 900,000 for the year. Dr. Hans Friderichs, Economics Minister, has conceded that the building industry may need assistance to help it through next winter.

Job protection and investment are key U.K. issues this week

BY ANTHONY HARRIS

THE EMPHASIS of economic news and discussion this week is likely to shift towards investment and the growing level of unemployment, after last week's preoccupation with the inflation figures.

The meeting to-morrow of the National Economic Development Council will offer a first opportunity for the Government, the CBI and the unions to seek common ground on policies to increase investment and the level of activity.

The CBI's Plan for National Recovery, circulated last week, in which the industrialists have for the first time outlined their idea of a substantial role for the National Enterprise Board, may offer a good starting point, especially after the change of régime at the Department of Industry.

The industrial production figures for April, which will appear to-morrow, and the retail trade figures for May, to be published later to-day, will provide a more up-to-date reading of the trends now developing.

On Wednesday, the May wage figures will show whether the slight slackening of wage pressure which has appeared recently is a new trend or a statistical aberration, and on Thursday the June unemployment figures will give an indicator of the economic situation.

At the end of the week the quarterly bulletin of the Bank of England is likely to redirect attention to the inflation problem: not for the first time, the Bank is taking a lead in calling for a new incomes policy. On the same day the latest sales and orders figures for engineering, though only for March, will provide further details of the business situation.

Iran, Saudi Arabia to probe 'bribery for contracts'

BY ROBERT GRAHAM, MIDDLE EAST CORRESPONDENT — TEHRAN, June 15.

IRAN AND Saudi Arabia are moving to investigate reports that foreign companies have been paying bribes to their officials to secure Government contracts.

In addition, Iran will now require all foreign companies who wish to do business with any Government department to sign a special affidavit affirming that no commissions have been paid to gain contracts.

Iran has also announced the setting up of a special commission to investigate alleged bribes paid to gain contracts here.

The two Iranian moves to tighten up on corrupt practices have been given major publicity in the Press here and follow directly upon revelations in the U.S. of substantial pay-offs being made by American companies to secure contracts.

Special payments

Iran and Saudi Arabia were mentioned as countries in which special payments had been made by the Northrop Aerospace Corporation. No direct reference to this has been made, but the coincidence between the revelations in the U.S. and the new anti-corruption measures is more than casual. One newspaper here said that the Government move was aimed "specifically at a number of American and West German firms."

The Iranian affidavit is a six-clause document to be signed in the presence of an Embassy consul official by a company representative. Clause three requires the company representative to declare that he and his company have incurred no direct or indirect liability for "any fees, commissions, bonuses, gratuities, or other payment of consideration to brokers, agents, finders or other persons . . . in connection with the execution or performance of business activities." A Bill is soon to be placed before Parliament, imposing heavy penalties on any company which is found to have contravened this undertaking.

UPI adds from Beirut: Saudi Arabia would also investigate reports about bribes paid by the American firm to two Saudi generals and would punish anybody involved in accepting this money, said an official statement issued on Saturday.

The statement, from the Defence and Aviation Ministry, said the Saudi Government had no prior knowledge of such payments "and never approved them." It was distributed by the Saudi Press Agency and said the Saudi Government had officially asked the U.S. Government and Northrop Aerospace Corporation for all the documents they had on the subject.

Lawyers of Northrop last week told a U.S. Senate sub-committee that the American company had paid out $450,000 to bribe two Saudi generals to recommend their country's purchase of Northrop F-5 fighter planes in 1971 and 1972.

"The Saudi Government was, and is still, concerned that the supplying of Saudi forces with arms take place in accordance with the national security requirements and requirements of the studied plan for defence," the statement said.

Wilson considers report on MPs' pay rise

BY JOHN BOURNE, LOBBY EDITOR

THE REPORT on MPs' salaries by the top salaries review body is in the hands of the Prime Minister and the Government must now decide whether to implement the report in whole or only in part.

Whitehall sources refused to comment last night on reports that the review body has recommended rises of up to £3,000 a year. It would be embarrassing for the Government to agree to such increases when the country is being urged to exercise pay restraint.

Back-bench MPs last received salary increases in 1972, although their allowances were raised last year. Their present salaries are £4,500.

Concern over tanker glut grows

BY STEWART FLEMING

GROWING CONCERN in the oil industry about the glut of tankers of over 150,000 d.w.t. and the pressure which the growing surplus capacity in the market is putting on tanker owners, is shown by a report prepared by one of Britain's major oil companies.

The broad outlines of the financial crisis now enveloping the tanker market and threatening several owners and their bankers is well known in oil and shipping circles, but the decision by this British oil company to publicise details of an internal report on the subject reflects its belief that the full impact of the situation is inadequately understood.

Drastic

In particular, it appears that the oil company is anxious to underline the urgent need for a drastic programme to cancel the bulk of the VLCC tankers now on order in the world's shipyards.

The report estimates that on the current building programme and in the absence of such cancellations, by 1979-1980 the world's tanker fleet will have reached about 430m. dw tons and about half will be lying idle.

In these circumstances, there would have been an enormous waste of resources building ships which are not needed. In addition, many of the oil companies would find themselves making ex gratia payments to owners from whom they are chartering tankers (some are already doing this) and they would probably find themselves using a bigger proportion of their own tankers to transport oil.

Capital tied-up

From the oil companies' point of view, this shift in the pattern of tanker supply would represent an unwelcome change, tying up more of their scarce capital resources than they would wish in shipping.

The problem spotlighted by the report—and the picture it presents is by no means the most pessimistic—is how to share the burden of the large-scale cancellation programme which is widely recognised to be needed.

The oil company suggests that at present none of the parties involved, the shipyards building the surplus tankers, the banks financing them, the owners who ordered them or the Governments involved, seem ready to set in train and bear the costs of the cancellation programme needed.

Violence tops Ulster agenda

By Our Belfast Corresspondent

THE WEEK-END spate of shootings and bombings in Ulster, in which two people were killed and a dozen injured, is certain to be top of the agenda when the Northern Ireland Secretary, Mr. Merlyn Rees, meets police and Army chiefs for his weekly security review to-day.

They will be looking not only at security measures but at what is behind the latest incidents. It is always risky, as Mr. Rees said himself, to apportion responsibility in particular cases, which may be sectarian, between rival groups on the same side or within a single group.

But there does seem clear evidence that much of this week-end's violence was tit-for-tat retaliation.

Attacks and counter-attacks in this category built up at the week-end.

This retaliation carries the risk of escalation of the fairly sustained campaign by Loyalist extremists—probably mainly the Ulster Volunteer Force—and its associated groups—since the IRA ceasefire began.

The starting point this weekend was probably the killing of three-year-old Michelle O'Connor when a bomb placed under her Catholic father's car exploded. This was followed by a suspiciously similar incident in Castlewellan, Co. Down, in which a Protestant man and his mother were injured.

In the Catholic New Lodge Road area on Saturday when a car sped down the crowded street spraying indiscriminate gunfire at both sides of the road a woman was killed and five men injured.

EEC finance Ministers meet

Mr. Robert Sheldon, Minister of State at the Treasury, will represent the Chancellor at today's meeting of EEC finance Ministers in Luxembourg—the first to be held since the British referendum result.

THE LEX COLUMN

Cyclical patterns point upwards

So far the economic cycle and the associated patterns of stock market prices are sticking remarkably closely to the well-worn historical paths despite current aberrations like the massive public sector financial deficit and the 25 per cent. inflation rate. The new edition of Panmure Gordon's review of cyclical indicators concludes that economic activity could recover later this year or early in 1976.

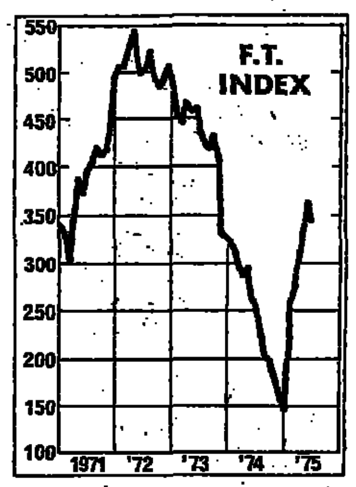
It is fairly typical that at this stage of a cycle too much publicity is given to the key lagging indicators, unemployment and manufacturing investment. In fact, the review suggests that the sequence of changes being recorded by leading, coinciding and lagging indicators is in no way unusual. The evidence points towards a further recovery in equity prices, and to a continuing decline in U.K. internal interest rates—though the brokers put in the qualification that progress towards cheaper money rates will become increasingly dependent on effective action to curb wage inflation.

On the industrial front, meanwhile, manufacturing profit margins appear to have turned an important corner. Datastream calculations indicate that the March quarter of 1975 produced higher margins than any three-month period since the end of 1973, excluding the distorting effect of stock appreciation which was responsible for around half reported profits last year. Ths partly reflects the amendments to the price code, but also the sharp slowdown in raw material costs and a slight flattening in the curve of labour costs.

Datastream make the point that just as reported profits were exaggerated in 1973 and 1974 by stock profits, so the improving trend in 1975 could be disguised by equally misleading stock losses. But they are confident that the recovery will continue on a substantial scale; after all, margins according to the March estimate had only crept back to 5.3 per cent. (related to gross output) and that compares with around 11½ per cent. at the trough of the last cycle.

How does all this fit in with the crisis?" From the Government's point of view, this is far from being the trickiest point of the cycle, unemployment apart. The trade figures on Friday emphasised how a simple recession can work magic with even the direst balance of payments problem. This year's weakness of sterling is no more than a reflection of its declining internal purchasing power. The really serious pressures on interest rates, sterling and corporate liquidity will only emerge somewhat later in the recovery phase of the cycle. That is why the Government is still in a position to postpone the wage controls and public spending cuts which the stockbroking literature has been vainly predicting for many months.

At this stage, the question of official action or inaction over inflation is more critical for gilts than for equities. The more probable outcome is that inflation will persist at historically very high rates—the Chancellor's target of halving the rate over the next 12 months would still leave the base at a higher level than for the last cycle, and his anti-inflationary policies have not exactly proved wildly successful so far. On this reading, gilts will be prone to a severe setback once the economy starts moving again, but equities could perform very strongly—especially since property might not siphon off funds on the same scale as 1972 and 1973—though it would be necessary to be prepared for a really nasty corporate sector crisis by late 1977.



So the merit of gilts is strictly that of a deflationary hedge, to take account of the slight chance of tough wage controls which could be expected to set the longs alight. Even in the absence of such news, gilts may continue reasonably firm for a while. After the most notable feature of 1975 so far has been the Government's ability to sell billions of pounds worth of gilts at increasingly negative real interest rates, while the annual rate of inflation has climbed from ... per cent. in December to 25 per cent. in May.

With the balance of payments improving faster than expected and the public sector deficit ... doubt steadily deteriorating, the Government's domestic borrowing needs are increasing still further. As a counter, however, the financial surplus of the personal and corporate sectors will be correspondingly greater: the projected 15 per cent. drop in industrial investment shows one way this is being achieved. Friday's ... ing bank figures demonstrate that the private sector is certainly not competing with the Government for new ...

Norcross

Norcros has made £... pre-tax for the 16-months to March, 1975, including a ... 12-months contribution from the Crittall-Hope acquisition. But for the year to March ... forma p and l account is provided, and this shows N... to be ahead by 46 per cent. at £9.8m. pre-tax, despite a ... turnround into losses in ... consumer products division.

The key to the performance is Norcros's ability to ... Crittall's metal window ... tions back to life plus a ... year in packaging—but the ... perience has left the ... highly geared. End-March borrowings are within £... tangible shareholders' funds of £23m., whereas in the last published balance-sheet the ... debt ratio was about 3... cent. Still, virtually all ... borrowings are funded.

The group's construction profits have shot up from ... £1m. to £3.3m., including ... from nothing to £2m. ... metal windows; but volume ... at a low ebb last year ... demand has stayed equally ... to date. Packaging (profits £3.3m.) is also going to have ... run hard this year to sustain recent earnings levels. ... any growth that Norcros ... expect in 1975-76 is going to have to be found in kitchen fittings—back to profits ... —and among the engineering operations. The shares yield ... well covered 6.7 per cent.

Registered at the Post Office. Printed by St. Clements Press Ltd. for and published by the Financial Times Ltd., Bracken House, Cannon Street, London ...
© The Financial Times Ltd., ...